

BUSINESS WEEK

YEAR
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Secretary of State Hull: Liaison between the world security conference and the U. S. Senate.

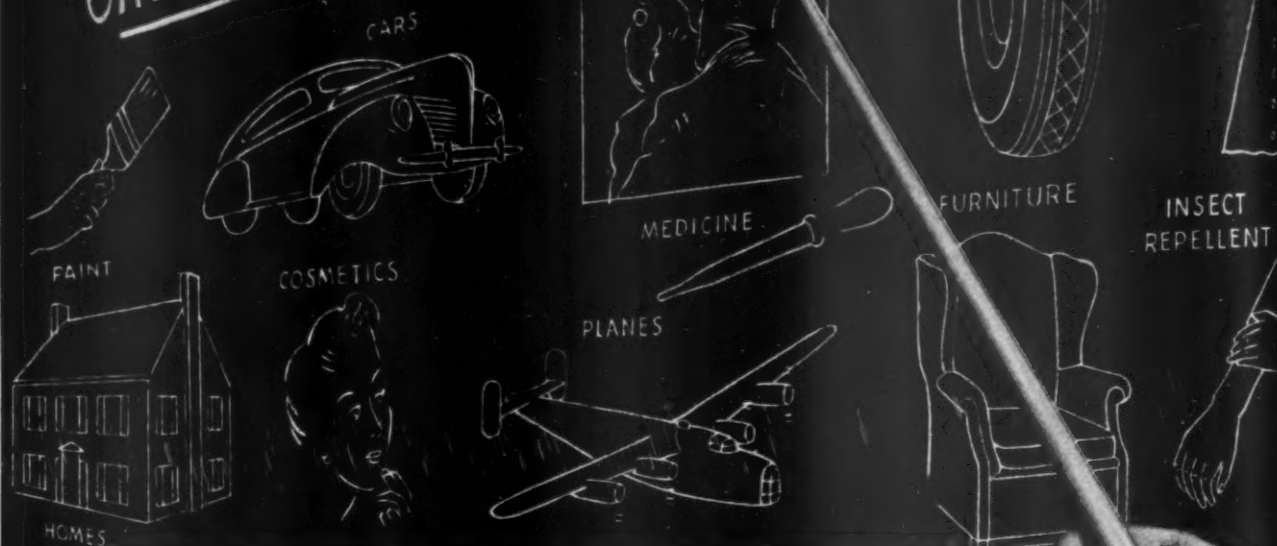
START
OF WAR
1939

BUSINESS
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INDEX

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POST-WAR MARKETING

by T. G. MACGOWAN, Manager, Marketing Research
The Firestone Tire & Rubber Company



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NEW YORK

POST-WAR planning focuses attention on problems of distribution and marketing. We believe the ideas and information presented in this paper will therefore be of timely interest to industrial and business executives. Copies will be sent on request to Bankers Trust Company, 16 Wall Street, New York 15, N. Y.

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BUSINESS WEEK

WHERE TO FIND IT

Agriculture	52
Canada	116
Figures of the Week	13
Finance	62
General News	15
Labor	96
Marketing	88
The Markets	118
New Products	80
The Outlook	9
Production	73
The Trading Post	119
The Trend	120
The War and Business Abroad	111
War Business Checklist	84
Washington Bulletin	5

THE PICTURES

Cover, 15 (left)—Press Assn.; 15 (right)—Charles Phelps Cushing; 32, 34—Acme; 44—Bus Transportation; 56—Acme; 73—British Combine; 74, 96—Wide World; 108—Acme.

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Stabilization Policy to Shift

Germany's fall will call for recasting of the Administration's stabilization policy, as to both prices and wages.

That's certain; and offhand, it would look like a good bet that the Administration might make the move before Election day, even if victory is still around the corner on that date.

Examination of the situation from votes-for-Roosevelt standpoint indicates, however, that the President will sit tight till after the votes are in—unless he can figure out a scheme that will please both the C.I.O. and the A.F.L.

C.I.O. Would Get Break

The rub is that the C.I.O. would be the first to benefit from any relaxation in the hold-the-line policy. In the auto, steel, and electrical industries, its cases for a wage boost are already set up.

If Roosevelt feels that it's advisable to sweeten the C.I.O., he has only to assure the organization privately that wages will be raised in good time to cushion the shock of slashed war production incident to Germany's defeat.

He can do that without antagonizing the A.F.L., whereas a positive move by Roosevelt at this time would leave A.F.L. in the lurch.

Politics vs. Labor Controls

The declaration of Thomas E. Dewey and the Republican platform against arbitrary wage-freezing, and the hope expressed by Gov. Dewey in his Labor Day proclamation that present labor controls can be stripped off within a year, would seem to be a good opening for a move in that direction by Roosevelt right now.

But Dewey then could say that the Commander-in-Chief is permitting politics to interfere with the war effort, or otherwise turn President Roosevelt's action against candidate Roosevelt.

Old Formula, New Technique

The Administration's new stabilization policy, when it comes, will not junk the old entirely. The Little Steel formula nominally will remain standing, but Roosevelt will beat a path around it by some such technique as deciding that, to insure a floor under wage purchasing power, reductions in overtime payments must be offset by increases in basic hourly rates.

On the price side of stabilization, the hold-the-line order will have to be bypassed if widespread cutbacks and the drive for full employment bring OPA to adoption of a more liberal reconversion price policy (page 15).

Nelson-China and After

Donald M. Nelson won't stay long in China, but he may not continue long as War Production Board chairman after he gets back. Nelson is deeply interested in the postwar foreign trade field. Friends say he would be willing to turn over the WPB job during reconversion to a new man who would bring a fresh viewpoint to bear on the program.

President Roosevelt's announcement of Nelson's mission, engineered by War Mobilization Director James F. Byrnes, stated that he would be gone for several months—which might cover a considerable part of the transition period following Germany's defeat.

Protests from industry, labor, and consumer groups were so strong that Roosevelt quickly followed up with another statement saying that Nelson's absence would be only temporary, and that his assignment did not mean any change in WPB policy.

News of the trip had been widely construed as a blow to Nelson's reconversion program. If the White House underrated Nelson's pulling power with the public, it has a better idea now.

Reassurance Needed

There is a real reason for Nelson's trip. His job will be to assure Chiang Kai-shek that the U. S. soon will be able to get in enough arms to equip China's discouraged armies and some consumer goods to prop up the wobbling Chinese economy.

This week, the Lend-Lease Administration reported that it had been able to get only a small amount of supplies into China. Total to June 30 is only \$153,584,000. Reassurance is badly needed at Chungking.

Surplus Disposal Issue

Surplus property disposal legislation will remain up in the air until a conference committee finally irons out the differences between the bill passed by the House this week and that likely to be adopted by the Senate.

Major issue, unless the Senate upsets its own Military Affairs Committee, will be over administration of the disposal program. The House knocked down two efforts to set up a board, as proposed by the Senate committee, instead of a single administrator.

The fight will be stiff, but the House is expected to win. If so, W. L. Clayton, administrator under temporary appointment, is slated to keep the job. But many major disposal plans will be subject to congressional veto.

Conference Will Decide

Any hope that the labor-supported Kilgore-Murray demobilization measure for war workers would be revived by the House was blasted this week by the Ways & Means Committee.

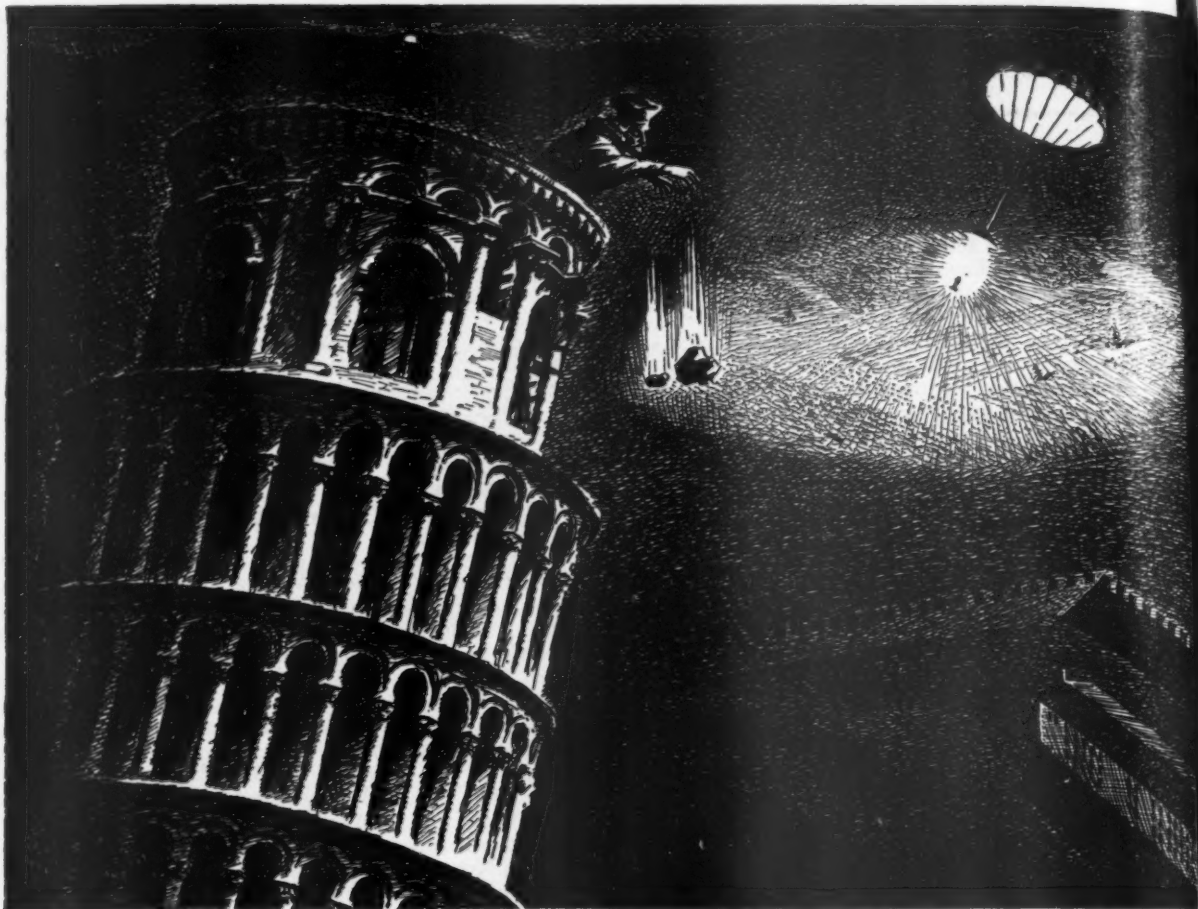
Even the Senate-approved George bill, which was adopted by a coalition of Republicans and southern Democrats after sponsors of the Kilgore-Murray bill described it as entirely inadequate, was too liberal for the House committee.

The House committee stripped the bill of several of its major provisions primarily to offset a drive on the floor for adoption of some of the Kilgore-Murray bill benefits, and to give the House conferees some trading material. Like the surplus property disposal measure, the unemployment compensation bill for war workers will be largely written in the Senate-House conference committee.

Post-Nazi Lend-Lease

Lest anyone—including the National Assn. of Manufacturers (BW—Aug. 12'44, p112)—doubt his position on the continuation of lend-lease to fighting Allies after the defeat of Germany, President Roosevelt laid it on the line in his report to Congress this week on lend-lease operations: "Until the unconditional surrender of both Japan and Germany, we should continue the lend-lease program on whatever scale is necessary. . . ."

Few ever doubted that lend-lease would be continued not only to Britain but to other nations which will fight against Japan after Germany is down. What is more important, while lend-lease continues, its character changes. Thus, Britain since November, 1943, has received certain long-range industrial goods only on a cash-



THE UNITED STATES TIME CORPORATION, world-famous watchmaker, produces time fuses—20th Century outgrowth of Galileo's experiments—which set off parachute flares. Shell supplies a unique lubricant eliminating hand-finishing

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The fuse used in a parachute flare is one of the most intricate instruments devised by man—many of its parts tooled to tolerances that are microscopic. The U. S. Time Corporation, peacetime manufacturer of Ingersoll watches, built a modern plant, scientifically lighted and air-conditioned, and set up a unique mass-production assembly line to turn out time fuses by the thousand. New tools and

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LEADERS IN WAR PRODUCTION RELY ON SHELL INDUSTRIAL LUBRICANTS

carry basis. Discussion of the normal procedure for shifting capital from lend-lease is continuing in London and Washington.

• The Shakeup Expected

The Interstate Commerce Commission probably will give southern and western shippers many of the freight adjustments they want long before anything results from the antitrust case (W-Aug. 12 '44, p5) the Dept. of Justice filed in Lincoln, Neb., this week against western railroads and the Union of American Railroaders. An ICC decision in the southern shippers' rate case is due in the fall. Political observers are confident that this will be a substantial step toward rate equalization that the South and West are demanding.

• Protect Subcontractors

WPB's Procurement Policy Board ought to light a problem that has been worrying officials for some time (W-May 20 '44, p7) when it issued a statement of policies to protect manufacturers of materials and components. Many subcontractors have been building up inventories without waiting for orders from primes. This shortens lead time and speeds deliveries as long as orders keep coming in, but with the threat of cancellation coming closer, subcontractors are saying that they must shorten up inventories unless they can be sure they will be covered in termination settlements.

The Procurement Policy Board, which includes representatives of all the procurement agencies, rejected the subcontractors' suggestion that the Army and Navy take responsibility for parts made up in anticipation of orders. Instead, it has set up a program to get prime contractors to place advance orders and accept responsibility for subcontractors' inventories in settlements. This won't satisfy the subs, and it won't please primes, but officials hope to make it stick.

• Precedent May Vex NWLB

Failure of the A.F.L. members of the National War Labor Board to support a majority decision asking Economic Stabilization Director Fred M. Vinson to act on two cases of defiance by James C. Petrillo's American Federation of

Musicians may have serious consequences for NWLB.

It broke a board tradition that compliance decisions are taken by a unanimous vote, regardless of whether the board's original action which provoked the defiance was unanimous.

The precedent conceivably might give employer members an excuse to dissent on decisions to refer to Vinson or the White House employer refusals to accept maintenance of membership.

Vinson has the job of figuring out a way to make "name" musicians play for certain record makers who have refused to make royalty payments into the union's unemployment fund (BW-Jun. 2 '44, p28). The casual nature of the employment relationship complicates the problem.

The other Petrillo defiance involves the refusal of eight musicians to work for radio station KSTP in Minneapolis

(BW-Aug. 5 '44, p94) at certain rate schedules. Here government seizure of the station might be effective, but the case is considered too petty for such drastic action.

• May Revise Beef Subsidies

OPA thinks it sees a way to smash the black market in high-grade beef by having the Defense Supplies Corp. boost the subsidy on low-grade beef (by transferring part of its hog subsidy money to beef).

If packers, at present, go over subsidy-ceilings in bidding for high-grade beef, they can bring down the average by picking up low-grade beef cheap. OPA would like to raise the subsidy floor on low-grade cattle and force packers to meet it.

Higher subsidies on low-grade cattle

New CAA Chief—An Aviation Veteran

T. P. Wright—Theodore Paul on his birth certificate, Ted to his intimates—has been nominated as administrator of the Civil Aeronautics Administration.

• **Industry Knows Him**—Most top aviation industry officials know how much Wright has contributed to bringing order into the aircraft production picture since he was called to Washington from his post as vice-president and director of engineering for Curtiss-Wright. Few others do.

Wright's nomination brings to one of the top civilian aviation jobs an engineer whose interests and activities in aviation have not been confined to the manufacture of aircraft but to its application to air transportation as well.

• **Has Board's Respect**—Wright has the ability to get along with people—an asset everywhere, but nowhere more so than in Washington. At the Aircraft Resources Control Office, where he is director, and at the Aircraft Production Board, of which he is a member and recorder, Wright has excellent working relations with the staffs as well as with industry.

Wright is a native of Galesburg, Ill., and he's 49 years old, medium height, and his slightly wavy light brown hair is now graying. Easy to talk to, he is articulate both in speech and in writing.

He was first called to Washington



from Curtiss-Wright in June, 1940, to serve with the advisory commission for the Council of National Defense and returned to his company some six months later after the expansion program was under way.

• **Another Call**—Wright was called back to the capital in February, 1941, with the Office of Production Management (later WPB) where he was deputy director of aircraft production until this unit was replaced by the Aircraft Production Board in December, 1942.

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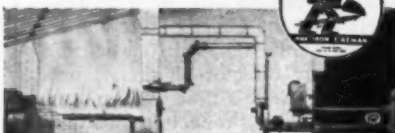
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IRON FIREMAN PNEUMATIC SPREADER STOKER meters steam size coal to the furnace on a stream of pre-heated air. Conveyor nozzle accurately distributes coal over the entire grate on a shallow fuel bed, the fires burning in suspension. Combustion efficiency is greatly improved over stokers which do not preheat the fuel.

are being urged by western congressmen, who fear a glut of grass-fed beef this fall (box, page 17). So, for political reasons, Economic Stabilization Director Fred M. Vinson may go along with OPA. The War Food Administration, most of whose officials don't fear a surplus of low-grade beef (particularly in view of an expected short supply of pork), doesn't want to rock the boat.

Credit Curbs Stay Awhile

Reports that the Federal Reserve Board soon will relax its Regulation W—which restricts instalment credit—are premature by at least several months. Regulation W isn't due for any major overhaul until reconversion goods start reaching the market in quantity, which will be some time after Germany's surrender.

Experts figure that until then the public will have more than enough cash to buy all the goods available, and they don't intend to start tapering off restrictions on credit until the new merchandise actually is on the counter.

Ship Sale Accord Near

Plans for postwar disposal of government-owned ships are beginning to take shape in Congress, although final action isn't likely this session. The Maritime Commission, labor, and shipping interests are fairly well satisfied with the revised bill introduced this week by Chairman Schuyler Bland of the House Merchant Marine Committee.

The new Bland bill would set up three categories of ships with selling prices determined differently for each: regular cargo ships and tankers similar to those constructed before the war, Victory ships, and Liberty ships. For regular models and Victory ships prices would be based on estimated prewar costs. Liberties would sell for a base price of \$100 a ton.

More debate on the price and sales terms of Liberties is due. The idea is to fix the price low enough to insure the use of Liberties, but high enough to encourage gradual replacement by more efficient models.

—Business Week's
Washington Bureau

THE COVER

Having set the pace of the world security conference (page 111), Secretary of State Cordell Hull will act as the link between the technicians of peace and Congress. The Administration has not forgotten how the lack of such liaison soured the 1919 peace.

DIFFICULTIES OF DOING BUSINESS
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**But let us help you cut
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THE OUTLOOK

BUSINESS WEEK
AUGUST 26, 1944



Estimated steel ingot production this week is the lowest—94.5% of capacity—since early 1942, barring weeks upset by holidays or strikes.

To the person who has watched the weekly estimates hover around 96%, 97%, and even higher most of the time since the first of June, this may seem a sharp dip. Actually, that isn't the case at all.

Weekly estimates in the 96%-97% range for June and July proved high when steel industry statisticians counted up what really had been turned out. June output amounted to only 93.9%, July to 94.4%.

The United States recently has been producing steel at an annual rate between 6,000,000 and 7,000,000 tons short of capacity.

Not only has the actual operating rate been dragging around the 94% level since the end of May, but there is a statistical factor that pulls the figure down a little further still.

The weekly and monthly percentages are based on the capacity we had at the beginning of this year—93,652,000 tons annually on Jan. 1. But we have added nearly a million tons to capacity since that date; thus a 94% rate based on Jan. 1 capacity means only 93% of today's actual potential.

These things lose steel needed in the war effort. To be sure, the industry has been doing a heroic job in the face of manpower shortages; this is the anticipated midsummer sag, but it is a loss nonetheless.

Shortage of flat-rolled steel is holding up production of civilian durable goods more than anything except manpower. The steel industry is staring at order books clogged clear into February on many products.

Yet there is a shrewd suspicion that a lot of the steel will never be fabricated. **It was ordered to throw at the Nazis, and this week's war map hardly looks as if we would be making steel for that purpose in November, much less in February.**

Steelmakers are wondering just how great the shock will be when unneeded orders are scratched off their books on Germany's fall.

Cutting of red tape on V-Day would go a long way toward warding off a demoralizing drop in steel operations.

There is a growing feeling in manufacturing circles—and not just in steel—that **the War Production Board should sweep out all "L" and "M" orders in a batch.** This argument holds that we can take reconversion to civilian goods in stride and still produce plenty to lick the Japs.

Only controls WPB would need, advocates of this plan insist, would be honest answers to these two questions:

Can you produce for civilians without shirking on war orders?

Can you get the workers without keeping men away from war plants?

People who urge this simplified course don't mean that there should be no planning for reconversions. **The more preliminaries we put behind us, the less the unemployment during the worst of the cutbacks.**

If WPB were to slash the reconversion red tape, the main problems then would become cancellations, settlement of contracts, clearing the production lines, and pricing of the new products to be made.

There are enough headaches in these things even if other restrictions

THE OUTLOOK (Continued)

BUSINESS WEEK

AUGUST 26, 1944

are removed. Pricing, by itself, will cost plenty of precious time (page 15).

The radio-television-electronics industry is one that figures that it can do its full share toward the goal of "full employment" after the war.

The prediction of Benjamin Abrams, president of Emerson Radio & Phonograph Corp., is an annual volume of \$3,000,000,000 compared with \$350,000,000 before the war.

And the electronics people know right where to look for new workers—the Army Signal Corps. Tens of thousands have been trained in radar.

The drive for high farm prices, now and postwar, is getting up a full head of steam (pages 17, 120). **Nub of the whole thing is "parity price," and the way parity works will be very interesting.**

Above all, it should be remembered that government supports for farm prices will not prevent declines.

Parity is a sliding scale, the relationship of farm prices to the things the farmer himself has to buy. **If hay rakes, overalls, coffee, and sugar go down, then parity itself goes down.**

Moreover, many crops now are well above parity. Some examples: raisins at 160%; sugar beets, milk, and butterfat at 130%; soybeans at 125%.

Business Week feels (and this view has wide support in the Dept. of Agriculture) that **farm prices in general will tend to dip in the year after Germany's defeat, that consumers' durable goods will go up.**

If that proves accurate, a government support program at 90% or 100% of parity will require spending billions of public funds in the effort to nail farm prices to a general rise in manufactured goods.

Sugar men are awaiting with keen interest postwar developments in this country's sugar beet industry.

They don't look for much wartime increase in planting. Even at high beet prices, farmers can get several times as much return per acre from other crops. This is notably true in California, biggest beet state.

Beets come into favor when other farm prices aren't so high. "They're a great depression crop," as one authority puts it. The tariff and federal benefit payments (\$48,000,000 a year for beets and cane) favor them.

Biggest postwar boost will come from mechanization. Most of the expensive, back-breaking hand labor will disappear after the war when enough of the newly developed implements (page 52) can be manufactured. The sugar industry is wondering, therefore, if beets can shake the "unecomic" stigma.

For your clew as to when residential building may be resumed on a large scale, watch the figures on wholesale-retail inventories of lumber.

Stocks long ago dropped below the danger point. They have been drawn down still further in recent months, **and the rate of decline has risen.**

In the last half of 1943, the overdraft was 2.5% on retail stocks and 5.4% on wholesale inventories. In the first three months of this year, WPB reports the declines at 18.6% and 19.4%, respectively.

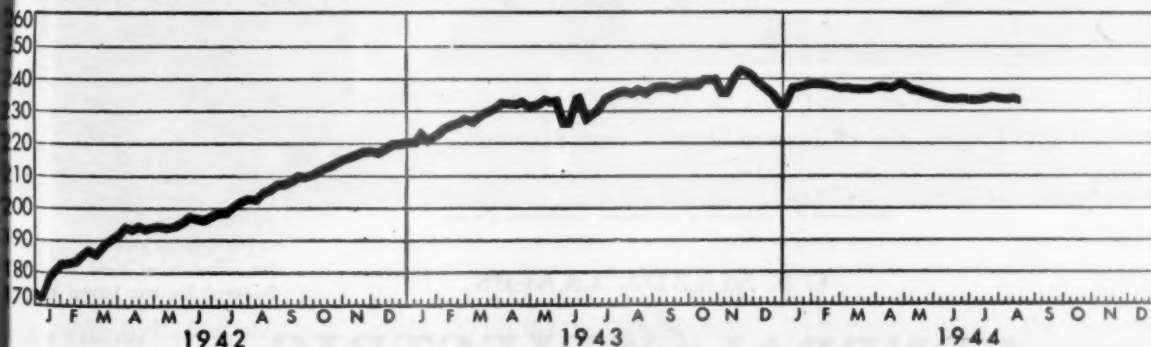
Total inventories at retail and wholesale dropped from 2,955,450,000 b.ft. at the end of last year to 2,401,548,000 on Mar. 31, 1944.

FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
INDEX (see chart below)	*234.4	†235.2	235.3	239.0	237.0
PRODUCTION					
Ingots Operations (% of capacity)	94.5	96.0	95.9	97.7	99.4
Production of Automobiles and Trucks	18,800	†18,895	19,545	18,110	19,820
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$6,290	\$6,447	\$6,894	\$5,125	\$6,731
Electric Power Output (million kilowatt-hours)	4,451	4,415	4,381	4,512	4,265
Crude Oil (daily average, 1,000 bbl.)	4,675	4,667	4,615	4,385	4,218
Bituminous Coal (daily average, 1,000 tons)	2,018	2,000	2,043	2,158	2,025
Other					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	84	83	83	78	81
Other Carloadings (daily average, 1,000 cars)	65	65	68	55	67
Money in Circulation (Wednesday series, millions)	\$23,020	\$22,910	\$22,531	\$20,610	\$18,214
Department Store Sales (change from same week of preceding year)	+13%	†+5%	+15%	-21%	+4%
Business Failures (Dun & Bradstreet, number)	19	16	29	25	54
INDEXES (Average for the week)					
Commodity Index (Moody's, Dec. 31, 1931 = 100)	250.5	249.8	249.4	249.3	245.4
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	165.6	†165.2	165.1	162.1	160.3
Agricultural Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	223.3	221.9	224.2	221.1	212.6
Crushed Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Strip Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.49	\$1.50	\$1.53	\$1.63	\$1.39
Corn (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	21.60¢	21.38¢	21.34¢	20.93¢	20.24¢
Wool Tops (New York, lb.)	\$1.332	\$1.325	\$1.340	\$1.304	\$1.355
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
Stocks, Price Index (Standard & Poor's Corp.)	102.9	102.0	101.5	93.8	93.2
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.55%	3.55%	3.56%	3.72%	3.82%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.72%	2.72%	2.72%	2.74%	2.69%
Auto Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	3%	3%	3%	3-1/4%	3-1/4%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	33,894	33,565	32,945	31,509	34,311
Total Loans and Investments, reporting member banks	56,383	56,524	57,304	53,854	47,040
Commercial and Agricultural Loans, reporting member banks	6,001	6,013	6,068	6,446	5,740
Securities Loans, reporting member banks	2,759	2,849	3,380	3,012	1,373
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	42,229	42,289	42,424	39,139	34,574
Other Securities Held, reporting member banks	2,946	2,939	2,881	2,843	2,906
Excess Reserves, all member banks (Wednesday series)	1,000	1,000	1,500	1,269	1,288
Total Federal Reserve Credit Outstanding (Wednesday series)	15,682	15,604	14,999	11,961	8,586
† Preliminary, week ended August 19th.					
‡ Calling fixed by government.					

† Revised.
‡ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



1923-25-100

Postwar modernization? Here's one way G-E lamps can help revitalize your office. Make lighting that speeds work and reduces eyestrain part of your postwar plans.



Remember! Good lamps are the heart of any lighting installation.



DON'T FORGET...the aim of General Electric Lamp Research is to make G-E lamps Stay Brighter Longer

G-E MAZDA LAMPS

GENERAL  ELECTRIC

In lamps marked G-E, you get the benefits of over 50 years General Electric Lamp Research

BUY WAR BONDS AND HOLD THEM

Hear the General Electric radio programs: "The G-E All-Girl Orchestra", Sunday 10 p. m. EWT, NBC; "The World Today" news, every weekday 6:45 p. m. EWT.

What Price Civilian Goods?

Broad policy is set on reconversion products, but problem of finding specific formula to meet all situations plagues OPA. Factors are profits and production economies.

Shed down by the consciousness of responsibilities, OPA has not yet set a formula for pricing reconversion goods. But the general policies which will follow are beginning to shape (BW—Aug. 19, 44, p5).

Administrator Chester Bowles said that OPA will take account of wage rates and materials costs in setting reconversion prices. To offset, however, he announces that OPA will keep an eye on (1) the over-all composition of manufacturers who are partially reconverted, and (2) on the total unit costs which may result from technological experience gained during the war.

Setting the Margins—OPA still intends to keep a tight rein on pricing in the early stages of reconversion.

In working toward an actual formula, officials have started with 1941 factory costs (which were based on 1941 volume). To this they have added the increases resulting from higher materials costs and boosts in straight-time hourly wage rates. Then they have figured how much margin will be needed as an incentive to reconversion. As the agency sees it, the company that is wholly reconverted will be entitled to a greater margin than one that is partially reconverted and still has war business to help carry the overhead and provide the profit.

Thus OPA might allow a fully reconverted company to add to its factory costs (adjusted for wartime increases) dollar-and-cents margin per unit that it received in 1941 or some other prewar

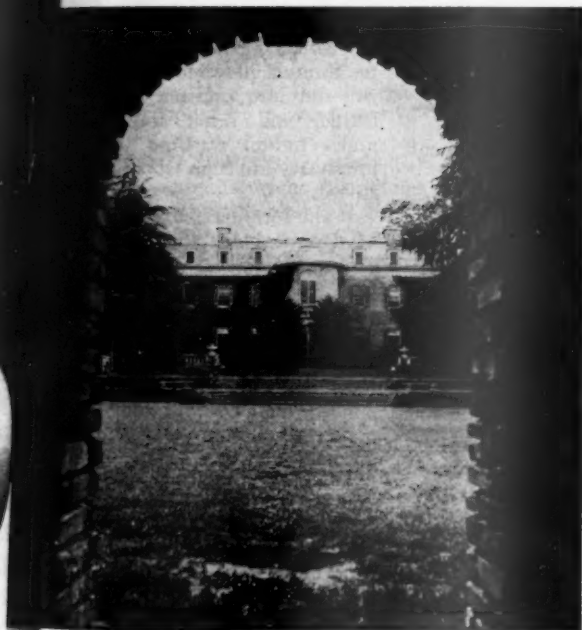
year. The price controllers can be expected to steer clear of pyramiding percentage markups on increased costs.

The partially reconverted company might be allowed to add only the spread between factory costs and total costs, enabling it to break even but leaving no room for a profit on its reconversion business.

• **Experimental and Temporary**—These standards may undergo considerable modification before OPA's formula is finally set, but they indicate how officials are thinking. Manufacturers should keep two points in mind however:

(1) Price officials know that they are walking on eggs. Whatever shape it takes, the first reconversion pricing formula will be experimental. As snags are encountered, and as manufacturers accumulate cost data, OPA expects to make changes.

(2) Right now, OPA is thinking only a few months ahead. The end of the German war, with large-scale cutbacks, will pose a new set of pricing problems. Quick reconversion and full employment will take precedence over the need

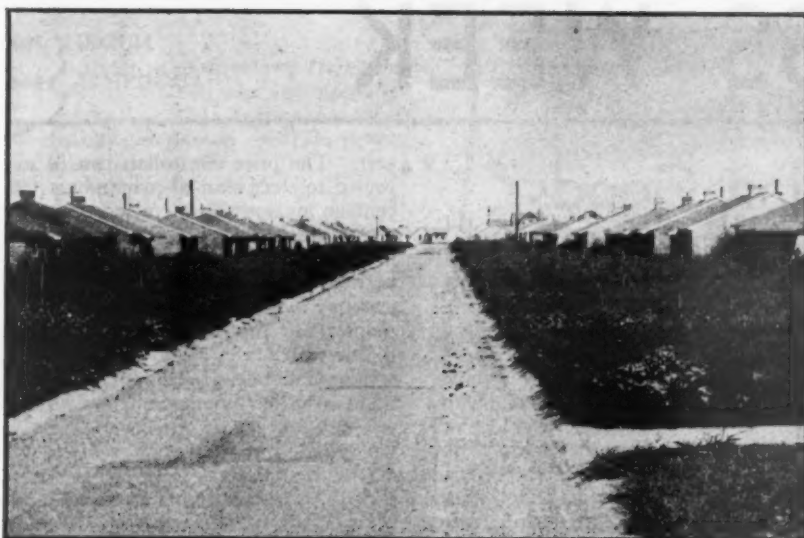


GATEWAYS TO PEACE

The Eiffel Tower, symbol of Paris, and Dumbarton Oaks, temporary seat of power peace politics, are framed in bold relief against the background of war. Liberation of the French capi-

tal not only represented a major goal of the Allied forces, but greased the skids for the defeat of Hitler's Wehrmacht. With the quickening tempo of military events dictating urgency, Soviet, British, and U. S. delegates to the world security conference at the

Harvard-owned estate near Washington agree on force to assure the peace, may differ on its application. Termed "exploratory talks," the conversations—with China to come in later—provide the framework for the final peace documents (page 111).



MODERN GHOST TOWN

An overambitious wartime building boom that backfired makes one section of Pryor, Okla., look like a modern ghost town. Neat brick bungalows on weed-ridden plots reflect blunders in estimating Pryor's needs and are the result of competition between government and private builders. Never occupied, these two-bedroom homes are part of the privately financed Wilkerson-Wickham project of 147 units, 80 of which are vacant.

At the street's far end is Washington's 500-house low-rent development of prefabricated units (only 20% idle), while another private project of 112 homes nearby remains 50% unoccupied. Center of the boom is the du Pont-operated Oklahoma Ordnance Works which apparently needed fewer out-of-town workers than the three building agencies estimated. Washington can remove its share of the housing glut by moving its vacant units to points of need, but the other two projects are permanently set.

for holding the line. OPA will keep price controls as a brake on a sudden inflationary spiral, but the terms will become more liberal.

• **Pricing by Profits**—Price officials already tacitly admit that, despite their reluctance to put price control on a double standard, reconversion goods will be priced according to more liberal standards than many civilian goods which have been produced throughout the war.

Last week, OPA amended Maximum Price Regulation 188 to allow for limited increases in the prices of many low-priced consumer durable goods. The amendment permits manufacturers whose over-all operations show a loss (or will within 90 days) to set a price on a given item high enough to cover the total manufacturing and selling cost on that product. A manufacturer whose over-all operation is profitable may on a similar item get a price high enough to cover only the unit manufacturing cost, plus packing and shipping expense. Manufacturers are permitted only to meet competitors' prices when these are lower than the price that would be al-

lowed through one of the adjustment procedures.

The list of items eligible for adjustment is made up of some 47 categories, including such goods as folding baby carriages, curtain rods, mousetraps, pencils, iceboxes. Significantly, however, it includes electric irons, the guinea pig for reconversion.

• **Electric Iron Pattern**—OPA already has announced that around 85% of an authorized production of 2,000,000 electric irons will be priced at the March, 1942, freeze levels. In default of a broad reconversion pricing order, the remaining 15% (to be produced by companies which had indicated that they cannot get along without an increase in their freeze-date prices) would be priced under the tight provisions of MPR 188—and they may be priced under it even if a reconversion pricing order is forthcoming soon.

Experience of the iron manufacturers in negotiating with OPA provides a cue as to what other industries can expect on reconversion. Iron manufacturers started out by talking about price increases of 15% to 25%. OPA's efforts

to persuade them to be satisfied in their March, 1942, prices apparently were furthered by the producers' fears that outsiders might move in and undercut them. This week OPA's Bowles warned industry that reconversion prices would be subject to new competition.

• **Discouraging Big Boosts**—OPA's present thinking leaves little room for manufacturers who are thinking in terms of prices up to 50% above prewar levels. In the automobile industry, where estimates of price increases have run in the neighborhood of 20% to 30%, and in one instance as high as 50%, OPA figures auto producers would be entitled to an average boost of less than 5% to cover increases in material and labor costs since 1941. In the machine and radio and phonograph industries, the figure would be less than 6%. In the piano industry, where wage rates have risen one-third, an increase of less than 12% would be necessary in OPA's estimation.

These estimates assume 1941 volume. Price economists believe that, once reconversion gets rolling, expanded volume and reductions in unit costs resulting from the production knowledge gained during the war will pay for many fields in prices no higher than prewar, if as high.

• **OPA's Dilemma**—Before that, however, OPA is up against the problem of providing a pricing formula for the ticklish early phases of reconversion. The formula allows too big a boost, it will run into pressure from the textile, and other industries to conform under tighter wartime standards, or it will lead into heavy fire from labor and consumer groups.

If the formula is too strict, OPA will have to meet charges of impeding reconversion, depressing wage rates, and putting a damper on postwar expansion.

• **As the Problem Changes**—Manufacturers can be expected to go to OPA in an attempt to get price increases which will cover the temporarily high costs of the reconversion period—small volume, overtime pay, inefficient labor, and use of substitute materials or of materials (such as some of the surplus inventories) with high reconversion costs. They will be able to count on support from Congress, often (when wage rates are involved) from labor.

In the initial stages of reconversion, OPA may be able to set many prices on a company-by-company basis. When the price agency can no longer postpone industry-wide, competitive pricing, there will be still more trouble.

• **Different Experience, Different Costs**—There have been wide discrepancies among the wartime cost increases

enced by different companies in the industries. Take two manufacturers who produced and sold the same product competitively before the war. The one—located in a tight labor market where there has been much upping—have increased 35% since 1941; of the other, 6%.

Some companies, which have been producing consumer goods for the war forces during the war, have cut prices through technical improvements. Their competitors, on straight war production, haven't been so lucky. Some of cutoff rule, which will enable all the highest-cost producers to meet their total costs, may be OPA's only action in cases like these.

Stalling Time Runs Out—Up to now, OPA has been able to solve many of its problems and to postpone the evil day (the form of another hike in the cost-of-living index) simply by stalling. This administrative technique won't work with reconversion pricing. If any important postwar industries wither on the neck because of OPA's neglect, the second price act won't be worth the paper printed on, and OPA knows it.

Postwar Farm Aid

Behind current jockeying is the expectation that peace will bring record program of crop controls, price props.

Congress instructed President Roosevelt to take every lawful action to boost prices of major farm products to parity in the Price Control Extension Act (BW-Jul. 1'44, p15), but the buck has been passed back to Capitol Hill with neatness and dispatch.

War Food Administration, which has to do the job along with Commodity Credit Corp., says simply, "We haven't got the money." Congress has to ante up if it wants its mandate carried out.

• **O'Neal Calls the Tune**—It's more than coincidence that cotton interests are busy preparing to do just what WFA says must be done. Led by Sen. John H. Bankhead (page 120) and paying close attention to demands of Edward A. O'Neal, president of the National

Farm Bureau Federation, they are readying plans to assure farmers 100% of parity for their cotton.

O'Neal, meanwhile, is advising planters to seal their crop under government loans of 92½% of parity and wait out the market rather than sell now at going prices slightly under 100%.

• **Postwar Crop Controls**—Behind all this jockeying, there is a growing realization that the peace will usher in a broader program of crop controls and agricultural price supports than ever has been witnessed in this country.

War Food and Commodity Credit are going on the theory that if prices are to be bolstered the size of crops must be regulated. And Robert H. Shields, WFA's solicitor, has figured the legal angles. He told the annual meeting of War Food Administration and Dept. of Agriculture solicitors in Denver last week that there exists authority to control production.

Washington has clear-cut powers to impose acreage controls on the five basic crops listed in the Agricultural Adjustment Act of 1938—cotton, corn, wheat, rice, and tobacco. (Peanuts for nuts

To Your Home From the Range—Maybe

Beef-eaters who are smacking their lips in anticipation of plentiful, point-free steaks and chops at mid-week had their ears to the ground to catch the first rumblings of the long-expected stampede of range cattle to market. So, likewise, had livestock producers, packers, and retailers.

Cattlemen, processors, and distributors are by no means unanimous that the beef-cattle rush will be as overwhelming as Washington prophesies. But, without a dissenting voice, they agree that the beef-hungry public should withhold its drooling until it has had its first actual taste of lean beef off grass.

• **Some Facts**—War Food Administration's recent order setting aside for government purchase 50% of all choice, good, commercial, and utility grades of beef is certain to cut into civilian expectations. The only point-free beef in the meat markets—if you can find one that carries it—is utility grade, which is a euphemism coined in Washington to make more palatable the grade that the trade still calls "common."

Common—or utility—is just above the grade that must be ground up for sausage because human teeth and jaw muscle have their limitations. In the eyes of the trade, the sole proper

function of a common-grade beef critter is to sojourn in a Corn Belt feedlot for 90 days on corn to soften its texture and remove its grassy flavor. After range beef is thoroughly boiled, braised, or stewed it is unquestionably good for you. But panegyrics on its nutritional value don't prove that, in taste, it's more than a cut or two above a bologna bull.

The livestock and meat industry is impatiently awaiting the issuance of Washington regulations which might change the entire prospect for range beef. Expectation: increased subsidy to stockmen and a double penalty on packers who buy cattle over maximum or under the minimum prices to be prescribed. The consensus is that such an order will help to stem the flood of range cattle which would otherwise be shipped to market in September and October.

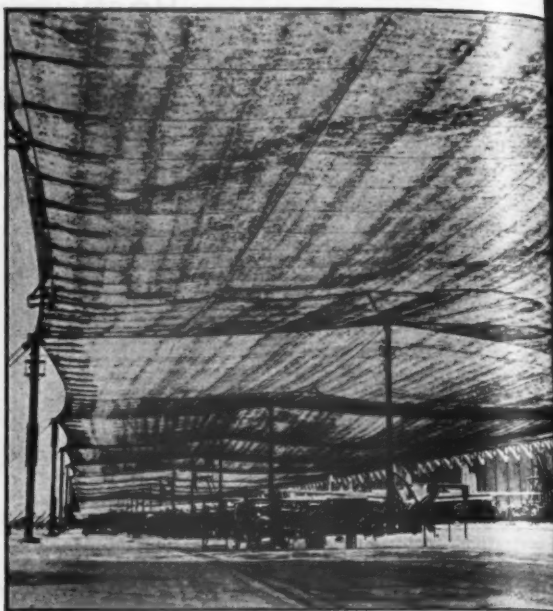
• **Opinions**—Differences of opinion about the volume of cattle coming to market in the next 60 days are sharp. Washington has consistently cried calamity. Some packers say that only a severe reduction in the price of range cattle, sufficient to give feeders an expectation of better than a \$3-per-cwt. margin between thin and fed animals, can divert enough grassers to the feedlots to prevent overwhelming the nation's slaughter capacity.

But a survey among livestock commission men who make annual summer trips to the range country discloses that only those at St. Paul and Omaha believe the rush will be up to government predictions.

• **Reasons Why**—One industry economist cites four reasons why marketings should be less than prognosticated: (1) Unless drought hits the range states, the cattlemen have enough feed to carry through the summer, with good prospects for the winter; (2) the market is high enough to quiet their price misgivings; (3) they are well out of debt; (4) the excess-profits tax would get most of their profits if they sell now.

The largest month's commercial slaughter of cattle and calves under federal inspection was 1,818,000 head, in October, 1942. The combined commercial and government drought cattle and calves slaughtered in September, 1934, reached 2,689,000 head.

To achieve WFA's goal of reducing total cattle population, slaughter under federal inspection will have to total about 15,000,000 head in the second half of 1944, or about 50% above the same months in 1943. With labor short and machinery creaking, such slaughter seems beyond possibility.



EVIDENCE OF CONFIDENCE

Removal of camouflage netting (left) at Consolidated Vultee Aircraft, San Diego, Calif., reflects the military's

growing confidence that the West Coast will suffer no air raids. Announced reason for stripping away parts of the big expanse of webbing (right) is that it interferes with out-

door plane assemblies. The \$1,000,000 camouflage job at Convair was started just after Pearl Harbor and completed late last year. Its monthly maintenance cost ran into four figures

have since been added to the original legislation.)

• **Wartime Additions**—But the list of supported commodities has grown during the war. The so-called Steagall amendment commodities are guaranteed price props at 90% of parity throughout the war and "until the expiration of the two-year period beginning with the first day of January immediately following the date upon which the President by proclamation or the Congress by concurrent resolution declares that hostilities in the present war have terminated. . . ."

The Steagall amendment commodities are hogs; chickens (with certain exceptions) and turkeys; eggs; milk and butterfat; certain varieties of dry peas and beans; soybeans, peanuts, and flaxseed for oil; potatoes and cured sweet potatoes. And supports may be with us for a long time. If a similar program had been in force after the last war, it would have terminated on Dec. 31, 1923, because the joint resolution terminating hostilities was not signed by President Harding until July 2, 1921.

• **Some Administrative Logic**—Now it is evident that the Steagall commodities were not explicitly placed under the acreage and marketing limitations of the Triple-A law. But Shields figures the whole thing is implicit:

"Since the purpose of the two-year provision was to enable farmers to readjust their production to normal by the

close of the two-year period, it is reasonable to conclude that production adjustment conditions related to changes in production needs may be imposed. This would make the position of the Steagall commodities comparable to that of the basic commodities. . . ."

• **For the 140, Too?**—Concerning some 140 other farm products, Congress has declared that the Dept. of Agriculture should operate to bring producers a price and income in fair relationship with the basic and the Steagall commodities to the extent that funds are available and according to "the ability of producers to bring supplies into line with demand." Broad construction of this phraseology presumably would justify a Little Triple-A for the 140.

Aside from cotton planters, those most concerned about supports are the hog raisers. The prop under their market is due to drop from \$13.75 to \$12.50 on Oct. 1. Moreover, it will apply only to hogs weighing 200 lb. to 240 lb.

• **Cotton Starts Parade**—For the time being at least, the 100%-of-parity mandate has little practical meaning for other farm products. But Commodity Credit figures it probably will be asked to pony up an extra \$200,000,000 on cotton soon (and its \$3,000,000,000 borrowing power already is stretched), while there are fears that growth of surpluses after the war will mean multiplication of loan-and-support operations.

Cutback in Dallas

B-24 curtailment to 10% of North American aircraft for 50%. City is resigned to loss of industry after the war.

Cutbacks in the war-born aircraft industry at Dallas, Tex., are more drastic than first anticipated. Curtailment of B-24 Liberator bomber production at the Texas division of North American Aviation, Inc., will reduce personnel at N.A.A.'s big Dallas plant to 17,500, a cut of 50% by Nov. 1. Immediate release of 3,689 workers was announced last week (BW—Aug. 19'44, p. 21).

• **Hard to Take**—Texans, proud of the budding industry and aircraft production record, found the cutbacks a bit of a dose. But even the more optimistic found little comfort in postwar outlook for Dallas civic leaders are now resigned to the likelihood that North America will dismantle its Texas factory after the war. This is expected to be the fate of the N.A.A. plant at Kansas City also, for it seems obvious to the aircraft industry that North American's home plant at Inglewood, Calif., will have sufficient capacity for peacetime needs.

Actual disposal of the N.A.A. branch plants will be up to Defense Plan-

which took care of building the...
 Not Affected—Production of AT-6 Texan trainer at the Dallas will continue on present schedule through November and then will drop 10% of the current output. Production of the P-51 Mustang fighter is not affected, and present contracts take production on this plane well into 1945. Even before the N.A.A. layoffs the Dallas area had a slight surplus of workers for essential industry. How- manpower officials estimate that essential business and industry can absorb 5,000 workers immediately.

Coast on Edge

Manufacturers fear they'll be left alone in production war after Hitler falls, and that eastern competitors will get a big start.

West Coast manufacturers are beginning to look with apprehension toward the day of Hitler's collapse. They're afraid they'll be left to fight the production war single-handed while their eastern and midwestern competitors are permitted to make civilian goods. Western manufacturers fear the loss of customers and sales channels.

And Less Labor—On top of this, the Pacific Coast manufacturer knows that he must try to produce with a diminishing supply of workers. Immediate needs are estimated at 27,000 workers.

Already the desire for peacetime job security has seized many of the estimated 1,500,000 workers who migrated to the West Coast to produce airplanes, ships, and other implements of war.

The manpower situation in the San Francisco Bay area last week was declared to have reached the most critical stage since Pearl Harbor. The northern California office of the War Manpower Commission announced that the area is suffering a net loss of from 4,000 to 10,000 workers monthly. The WMC said the workers, many believing they will lose their jobs with the defeat of Germany, are leaving for their old homes in the Middle West or South.

Novel Approach—To counter this outflow of needed workers, the labor-management committee of the WMC took a novel approach. Last week, in identical advertisements furnished the New York Times, Washington Post, and Washington Star, the committee urged that war plants on the Coast be permitted to reconvert partially to civilian production on the day Germany is toppled. The advertisement was admittedly a pressure move on Washington.

The committee urged immediate action "so that tangible evidence to the war workers will be available now in the direction of creating job opportunities in this area."

• **Jointly Sponsored**—The advertisements were inserted by the Victory Manpower Campaign Committee of Northern California, an association of management and labor members—between 500 and 600—who contribute financially to a common pool.

Labor leaders and employers believe they can stop the out-migration if they can promise jobs not only throughout the war against Germany and Japan but in the postwar period as well.

• **Shortages Cited**—Through Sam Kagel, acting northern California WMC director, the employers and unions enumerate their big problems of supplying men for longshoring, warehousing, railroading, ship repairing, and related activities as well as making war goods. Kagel sums up the fears of most West Coast industrialists when he says:

"Industry and the workers, too, are willing to accept their responsibilities, and they are entitled to a fair break with the rest of the nation when war conditions permit a start toward reconversion."

Shoes Still Pinch

Leather supply outlook and new demand from liberated areas are expected to keep domestic footwear scarce.

The civilian supply of shoes immediately following the end of the European war is not expected to improve. Even if manpower becomes plentiful, leather will not be.

A new demand will come from liberated countries. Greatly depleted herds in Europe, plus a tremendous demand for shoes, will leave the U. S. not only with a tempting foreign market but also with a domestic demand backed by cash in the pockets of people who seldom bought expensive shoes before the war.

• **Rationing to Stay**—Rationing of civilian shoes, therefore, is not likely to end for many months after the defeat of Germany.

Stamp purchases of rationed civilian shoes have been exceeding production for some months. At first this depletion was hardly noticed, but as time

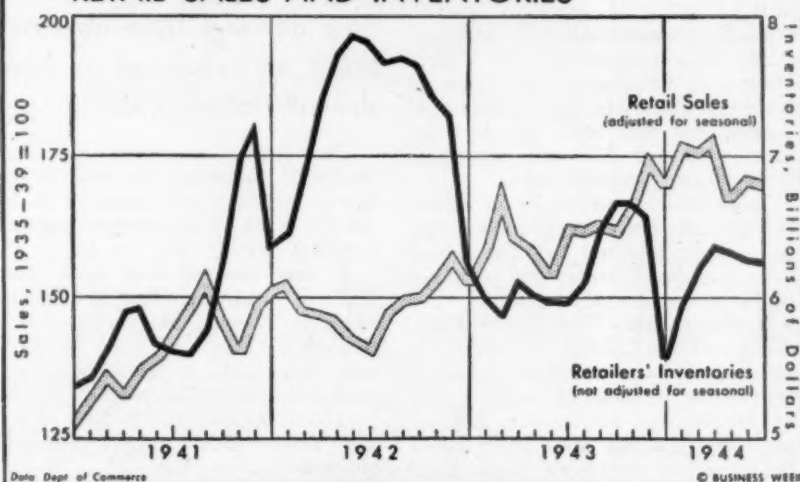


UP-TO-DATE MAPS

Constantly revised war maps serve the Chicago Sun in its latest promotional effort to keep the public abreast of battle trends and also familiar with the site of its future home. The 25-ft.-square maps are on a billboard erected last week on the W. Madison St. plot recently purchased by Marshall Field

for the newspaper plant he plans to build after the war. Records of Allied advances are kept apace on the painted maps by white arrows screwed into place. Telephone calls from the Sun's telegraph desk dispatch painters to revise the maps at an average cost of less than \$10. Rapidly rolling offensives dictated five changes on the maps in the first ten days.

IN THE OUTLOOK: RETAIL SALES AND INVENTORIES



Retail sales in the second quarter of 1944 dipped below the late 1943 and early 1944 wartime peak—probably because consumer income has flattened out while income and excise taxes have taken another jump (BW—Jun. 3 '44, p18). Whether total sales rise during reconversion depends on how fast durable goods return as against the pace of reductions in war

payrolls. Following the 1942-1943 liquidation, inventory values have changed little over the past year, except for price increases and upgrading, because physical stocks are close to rock-bottom levels. Also, anticipating some markdowns when peace again loosens supplies, retailers have been cautious about laying in stocks of "ersatz" or high-priced goods.

goes on it becomes cumulatively worse.

• **Stocks Dwindle**—OPA hopes to have figures on shoe inventories by mid-September, but earlier surveys show what is happening. It requires about 300,000,000 pairs of rationed type shoes annually to meet civilian purchases. On Jan. 1, 1943, inventories listed 254,000,000 pairs of ration types. Dec. 31 they had fallen to 200,000,000 pairs. Estimates for July, 1944, put the stock at 170,000,000 pairs.

Added manpower can increase production, especially of nonrationed types, but some shoe men are saying that, because of probable fourth-quarter demands of the war agencies, civilians can't count on more than one pair of leather shoes before next summer. WPB expects there will be continued sporadic releases of shoes in unrationed lots as conditions fluctuate.

• **The Hide Supply**—World hide production for 1944 (number of hides) is estimated at:

United States.....	22,000,000
Argentina	6,400,000
Canada	2,000,000
United Kingdom	1,600,000

This is a big jump for the U. S. over 1943, when the slaughter totaled

something over 18,000,000 head. The increase, however, doesn't all accrue to us. A United Nations world hide agreement allocates 3½ hides to the U. S. to one for the United Kingdom. This results in our getting a bigger share of Argentine hides when our own output is down, but when U. S. output is high, our percentage of imported hides falls. (The U. S. imports no tanned leather from Argentina because Argentina does not have the chestnut, oak, and hemlock for tanning, which makes the U. S. process better.)

• **Manpower Problem**—The manpower situation in shoe factories is critical, but not so bad as in the tanneries. In May, 1943, there were 187,300 workers in shoe factories; in May, 1944, there were 173,800. Workers in tanneries numbered 40,400 in May, 1944, compared with 46,900 a year before.

Nevertheless, civilian shoe production during the first five months of this year increased slightly, from 173,936,000 pairs in that period of 1943 to 174,888,000 pairs.

This included nonrationed types of shoes, however, and showed a sharp shift in the kind of soling material used. Leather soled shoes dropped from 138,000,000 pairs (first five

months of 1943) to 95,000,000 in the same period of 1944. Rubber composition soled shoes increased 100,000 pairs (from 25,654,000 to 527,000) and those with sub materials quadrupled from 10,390 pairs to 46,503,000.

• **Nonrationed Shoes**—Nonrationed types of shoes are probably added to fill all demands, but retailers are happy about them.

While it is true that most rationed soles outwear leather, it is true that customers don't like the types, which are said to be slippery in wet weather. Another complaint is that they don't hold their shape. Some types, such as men's evening shoes with composition soles, will never be made under normal conditions.

• **Retail Fears**—Retailers look at wartime shoes on their shelves with misgivings. They are afraid of being stuck with them.

If a miracle should happen, and leather become plentiful, many retailers fear they would go bankrupt because they could dispose of nonrationed wartime substitutes. Not all are agreed that rationing is a good thing, but the majority seem afraid of what the end would bring.

• **Oil Treatment**—The oil treatment of sole leather to increase its wear qualities (BW—Jun. 3 '44, p54) is, while, gaining more and more acceptance from manufacturers.

About 80 are now using it, most of them employing the Army Quartermaster formula which OPA's Standard Division has approved. Oil treatment also permits the use of inferior leather that would otherwise not be suitable for soles.

Military requirements were scarce during the first two quarters of this year, partly because the new combat boot (BW—Jan. 29 '44, p8) called for new methods as well as more leather. Output is rising now, but fourth-quarter requirements are not known.

• **Postwar Problem**—Old-timers in WPB's shoe and leather branches have a long-term worry—the possible inflation of hide prices (now about 15¢ lb.), followed by a collapse of the market after the war if controls are continued.

They point out that when the U. S. entered the last war in April, 1917, domestic cowhides brought 28¢. May, 1918, a ceiling of 24¢ was imposed. Controls were removed Dec. 1919, and in eight months hides soared to 53¢ and 61¢. A year and four months later they were down to 18¢, and by April, 1921, were 8¢. Many leather and shoe men were broke.

and Issue Again

Clayton trod on tender in turning over to RFC the of selling surplus acreage. er agencies want task.

ennial, adroit William L. Clayton, of the Surplus War Property Administration, found himself in hot water the first time this week. In setting his plans for disposal of surplus government-owned real estate, Clayton on the toes of several old-line federal agencies. Now, with SWPA's relative charter pending before Congress, the field of action in the fight land disposal policy suddenly has shifted to Capitol Hill.

RFC Challenged—The man who led the heaviest kick on SWPA's decart was Assistant Attorney General Norman Littell, head of the Lands Division in the Justice Dept. Littell, whose office has handled most of the government's land acquisitions during war, appeared before the Senate Special Committee to Investigate the National Defense Program (the old man committee) to attack Clayton's position in placing land disposal in the hands of the Reconstruction Finance Corp.

The RFC, declared Littell, was inexperienced; its agents were too sympathetic to real estate brokers; its policies would touch off a catastrophic land boom that would end in a crash.

Rooting for Littell from the sidelines are the Dept. of Interior and the Dept. of Agriculture, both of which had been angling for the land disposal job when Clayton assigned it to RFC. Even though Congress settles the immediate issues, the fight is likely to become a long-drawn-out interdepartmental feud with Clayton and his SWPA caught squarely in the middle of

issue Since 1787—Debate over land disposal policy began around 1787—when the Continental Congress passed the first legislation governing settlement of the Northwest Territory. It has been an unabatedly hot political issue ever since.

During the last century, the big question was how fast and on what terms the government should open up the public domain to settlement. In recent years, the controversy has centered around federal acquisition of land for parks, power projects, and the like. Wartime requirements of the Army and Navy have intensified this fight and raised the new question of how the government is to go about selling unneeded real

estate after the war (BW—Jun. 3'44, p21).

• **460,000,000 Acres**—Figures on government land ownership always have been unreliable, partly because federal holdings are divided among more than a dozen different executive agencies, partly because large tracts are subject to claims (such as the rights of Indian tribes) which give the government something less than outright ownership in many cases.

Latest figures, compiled by the House Public Lands Committee, showed a total of 455,171,000 acres under federal ownership, which represent about 24% of the land area of continental United States. Since the report was compiled, the Army and Navy have taken over about 5,000,000 acres in addition to previous holdings.

• **Most in Public Domain**—By far the largest part of these holdings—about 91%—never has been in private hands. These tracts either are part of the public domain or have been transferred from the public domain to government agencies, such as the Forest Service.

Altogether, the Dept. of Interior, which administers the public domain, holds 267,705,000 acres, of which 55,280,000 come under the Office of Indian Affairs. The Dept. of Agriculture,

which includes the Soil Conservation Service and Forest Service, accounts for another 165,980,000 acres.

• **Holds Down Taxes**—From the viewpoint of local government units, the big trouble with federal land ownership is that it keeps property off their tax rolls. In six western states, federal land holdings run higher than 50% of the state's area (chart). In Nevada, 87% of the land is under federal ownership, in Arizona 73%, and in Utah 72%.

Counties sometimes are even harder pressed. Alpine County, Calif., shows about 91% of its territory in federal hands. Two counties in South Dakota have given up trying to act as separate government units and have turned their affairs over to adjoining counties.

• **Wanted Tax Rights**—Before the war, most local officials didn't want the federal government to dispose of their land holdings. What they wanted was the right to tax it.

Much of the government-owned land is unsuitable for cultivation or industrial use. In private hands—assuming it could find a buyer—its valuation would be too low to add much to local tax revenues.

• **A New Twist**—Wartime acquisitions have put a new twist on the situation. Three-fourths of the land taken over



LIGHT COAL CARRIER

Beside the Burlington Route's new aluminum hopper car, two girls demonstrate its light weight by hefting a piece of the car's sheathing. The 58-lb. side panel weighs 116 lb. less than a section made of steel. Over-all weight saving for the car is almost four tons, 840 lb. of which is repre-

sented by hollow steel axles (BW—Nov. 13'43, p64). Rebuilt experimentally in Burlington shops, the hopper car contains metal supplied by Aluminum Co. of America under recently relaxed allocations (BW—Jul. 8'44, p15). Aluminum's noncorrosive qualities are counted on to make the car stand up, particularly under the destructive chemical action of coal.

Business Week • August 26, 1991

NEW

Added Data with Ryerson Alloys

Are you getting this important help?

Ryerson has always exercised close control over alloy steel quality and for several years has furnished the chemical analysis and heat treatment response data with each alloy shipment. Now, this service has been extended under the Certified Steel Plan to give new additional information . . . much more helpful than before.

A new type of Report, containing both hardenability and analysis data, now is being sent with each Ryerson alloy shipment. In addition to the chemical analysis, every alloy heat stocked by Ryerson is subjected to four separate end-quench tests in our own laboratory. The results of these tests, when interpreted through tables of known physical relationships, reveal the obtainable tensile strength, yield point, elongation and reduction of area for 1, 2, 3 and 4 inch rounds quenched and drawn at 1000°, 1100° and 1200° F. Reports include all this test and heat treatment information, plus recommended working temperatures. Thus, you know the complete chemical analysis, what working temperatures to use; and how the steel will respond to heat treatment.

Ryerson continues to positively identify all

alloys. They are color marked according to type. Large bars are individually stamped, and smaller bars are bundled and tagged with a heat symbol. This identification is entered on every Report Sheet; so cross-reference verification between Report and steel is unmistakable.

Whether you order a single bar or many tons, you can be sure Ryerson will furnish Reports covering every alloy shipped. Both steel and Reports are delivered together on local shipments. When shipment is made by other than Ryerson motor service, the Reports are sent by first class mail and addressed to the heat treating department.

We believe the uniform high quality of Ryerson alloys—the careful testing—accurate identification—the new, complete guide data—metallurgical counsel—and quick shipment—make Ryerson your number one source for alloy steels from stock.

We urge you to use this unique service.

Joseph T. Ryerson & Son, Inc., Chicago, Milwaukee, Detroit, St. Louis, Cincinnati, Cleveland, Pittsburgh, Philadelphia, Buffalo, New York, Boston.

RYERSON STEEL



Treated wood helps keep overhead down, good-will up

Station platforms on interurban railways are the places where patrons form their first impressions of the lines' service and efficiency. Decayed platform decks or broken steps are not only a source of expense to the railway—they can also mar an otherwise favorable public opinion. That's why so many of these "front porches" are built of pressure-treated Wolmanized Lumber*.

Wolmanized Lumber owes its ability to resist decay and termite attack to vacuum-pressure impregnation with Wolman Salts* preservative. This treatment drives the preservation deep into the wood; fibre-fixation prevents its leaching out. The wood is clean, odorless and paintable.



You can't get these results by painting a preservative on or dipping the wood. Decay and termites find it too easy to get inside a film so loosely applied.

Wolmanized Lumber has been employed all over the world by our armed forces, as a means of effectively combating decay and termite attack. Be guided by the choice of engineers who have selected this wood after observing the splendid performance of millions of feet of Wolmanized Lumber in the toughest kind of assignments. American Lumber & Treating Company, 1656 McCormick Building, Chicago 4, Illinois.

*Registered trademarks

WOOD THAT'S



FOR SAFETY AND ENDURANCE

AMERICAN LUMBER & TREATING COMPANY

dispose of surpluses through established channels and that brokerage is established method of dealing in estate.

Large landholders still are keeping a suspicious eye on plans to break up tracts into family-size plots. In areas, where large landholding is the rule, owners are afraid that government property will be used to establish a pattern of farm ownership.

Less Paper Work

Army comes to rescue harassed contractors with new shipping document eliminating dozen-odd existing forms.

Blizzards of paper work that cluttered under virtually every war contractor's desk abate considerably on Sept. 1 when the Army begins using its new uniform Vendor's Shipping Document which contains in one foolproof form all the data necessary to deliver military supplies.

• **Dozen Forms Scrapped**—The all-inclusive blank devised for Quartermaster depots and the Army Service Forces saves time and effort for both the contractor and the contractor by scrapping the dozen-odd forms now required to route all of the various war material Bills of lading and contractors' invoices will not be affected.

Executed at procurement offices, the one-shot shipping order is reproduced mechanically (by hectograph) to provide 17 copies for domestic shipments and 49 for overseas deliveries. Copies are routed to all of the involved civil and military offices, which add their information to the form as the shipment progresses.

• **Butter for Bullets**—This system is in sharp contrast to present complicated methods under which 31 copies of different forms are necessary for domestic shipments, 49 copies of blanks for overseas loadings. Such duplications have always posed threats of such disastrous mistakes as the shipment of butter, say, to embattled troops who need bullets—all because of an error in transcribing a serial or shipment number.

According to Army estimates, the Vendor's Shipping Document will save 45% of the clerical effort at procurement and inspection offices, 45% of the pencil work at shipping points, and 80% of the verifications and receipts at destinations.

Contractors' savings will vary according to their products, destinations, and volume.

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Idea Corner
Postwar Package Planner

COOL DRINK... WARM RECEPTION SUGAR IN THE SPOTLIGHT... MOTOR PARTS THAT KEEP FIT...



IDEA NO. 1 This "cooler" should get a warm reception because the package lets the eyes promise the palate a treat in a variety of exciting flavors. 85% of all buying starts with the eyes!



IDEA NO. 2 Off the shelf onto the counter comes the product in a transparent package. An impulse item to catch the shopper's eye. Novel pouring spout provides convenience in use.

Basic Themes of Postwar Merchandising

Here are six fundamentals that will help to lower postwar distribution costs and speed up turnover. Use them to check your postwar package plans.

- 1. SELF-SERVICE:** Emphasis on self-selection and display value.
- 2. CONVENIENCE:** Size, shape, quantity, ease of use are predominant factors.
- 3. INFORMATIVE LABELING:** Need for concise information, terse selling message.
- 4. IMPULSE BUYING:** A high percentage of all buying done on impulse.
- 5. PROTECTION:** Adequate protection geared to rapid turnover.
- 6. VISIBILITY:** 85% of all buying done through the eyes. Visibility of primary importance in the package of the future.

Would you like to see more postwar packaging ideas? Just write: E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington, Del.



IDEA NO. 3 War has shown the need for adequate protection for many products not previously packaged. Metal parts, for example, must be guarded against corrosion and dirt. And a window lets prospective buyers see the protection.

Du Pont Cellophane



Better Things for Better Living . . . Through Chemistry

VISIBILITY... a powerful force in modern merchandising

McCulloch Engineering Corp.

M I L W A U K E E

Now to be known as



SUPERCHARGERS, Inc.
 • DIVISION OF BORG-WARNER
 Milwaukee 9, Wisconsin

The organization previously known as McCulloch Engineering Corp., Milwaukee division of Borg-Warner Corp. now is to be known as B-W Superchargers, Inc., Milwaukee.

This change of name is intended to emphasize the fact that this company will continue to specialize and concentrate on the production of superchargers for internal combustion engines for transport, stationary, construction equipment and other services.

The modern plant of the former McCulloch Engineering Corp., on Capitol Drive, Milwaukee was originally designed, built, and equipped for the manufacture of superchargers. In response to wartime demands it has supplied superchargers in volume numbers for military installations of all kinds. When peace returns B-W Superchargers, Inc., will continue to build superchargers for increasing the power of gasoline and diesel engines of the future.

Because it is more indicative of its principal activity—the design, development and production of superchargers—the change of name has been made.



SUPERCHARGERS, Inc.

• DIVISION OF BORG-WARNER
 Milwaukee 9, Wisconsin
 formerly McCulloch Engineering Corp.



Alabama Retirement

State withdraws ban on membership maintenance case upon inclusion of escape clause in contract.

Threats of a far-reaching jurisdiction dispute between the Alabama Dept. of Labor and the regional war labor board in Atlanta, Ga., appear to have dissolved, but Alabama hasn't seen the last of the fireworks. This week state courts were asked to pass on the constitutionality of the Brainerd labor control law in an issue arising from the rivalry between the federal and state agencies.

• **Enforcing Security**—The dispute (Jul. 15 '44, p. 95) arose when the office of the National War Labor Board ordered two affiliated Birmingham companies, Ingalls Iron Works Co. and Birmingham Tank Co., to enforce maintenance-of-membership provisions of a contract with the A.F.L. International Assn. of Bridge, Structural and Ornamental Iron Workers.

The Alabama Dept. of Labor acted with a warning that enforcement of this provision would be contrary to the Bradford act which guarantees to every worker the right to join or refuse to join a labor union.

• **No Escape Clause**—The contract expired Apr. 12, 1944. It contained a maintenance-of-membership clause without the escape provision, now standard which permits workers to withdraw from a union within 15 days after the expiration of their contract.

The union, acting under the membership-maintenance clause, demanded Ingalls suspend some 200 workers delinquent in dues. The company, arguing that to do so would violate the Bradford act, appealed to the regional board for guidance.

The result was a controversial interim directive from the board that, pending a new contract, the old one remained in effect. Industry members dissented.

• **Hearings Held**—Faced by the Dept. of Labor challenge, the board followed up its interim directive with hearings and a decision, unanimous, that a union security clause supported by a 15-day escape proviso be included in a new contract which would be considered retroactive to Apr. 12.

The 15-day escape provision was made conditional upon delinquent members' paying up all back union dues before being permitted to withdraw from the union. Such a requirement was the first of its kind in the region but precedent had been established



Official U. S. Navy Photograph

Scene I—In its shops, plants and factories, America is producing the wherewithal of war.

Scene II—Traversing more than 56,000 miles of sea lanes, America is delivering.

Mountains of material are scientifically stowed in the holds of our merchant ships or lashed to the decks. Millions of gallons of gasoline and other petroleum products are pumped into ocean-going tankers.

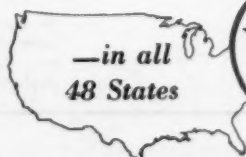
More than 700,000 different articles, guns and butter, are in constant, unrelenting movement by convoy to the battle fronts. Our vast Merchant Marine, guarded by the U. S. Navy,

keeps 'em flowing—to keep 'em fighting.

Behind this gigantic assignment of manufacturing and moving the articles of war, one ingredient is always in evidence—oil. Fine lubricants, cutting oils and coolants to insure precision, speed and economy.

Texaco makes all of its quality petroleum products quickly and conveniently available in the U. S. through its *more than 2300 wholesale supply points* and *at principal ports throughout the world*. Texaco also makes available from these same sources its skilled engineering service to help in securing efficient operation, speed and economy from its products.

THE TEXAS COMPANY



a number of cases in the shipbuilding industry, the board said.

The board believed that since union members had bound themselves voluntarily for the term of the contract, they should be required to discharge their union obligations before withdrawing.

• **State Accepts Decision**—The new decision brought from W. Emmett Brooks, Alabama director of labor, who

previously had bitterly assailed the federal agency for interference, a statement that the board no longer was acting contrary to Alabama law, inasmuch as the board now permitted workers to belong, or not belong, to a union.

Brooks said that his department agrees that workers should be obligated, both morally and legally, to pay back dues that had accumulated under old union

contracts to which they had agreed. Although that row seemed to have been settled satisfactorily, an injury suit growing out of it remained on the court docket. Clifford Jenkins, a member of the A.F.L. union, filed a suit against Clem W. Walter, Jr., superintendent of the Ingalls company against the union, charging that he had been suspended for nonpayment of dues.

States Exercise Varied Controls Over Labor Unions

The rash of state laws to control labor union activities which appeared on the statute books in 1942 and 1943 (BW—Mar. 13'43, p15) subsided this year, probably pending decisions in court tests now on the dockets. Test cases have been brought in eight of the 14 states having such laws.

• **Two Tests Pending**—Significant among the current litigation is the

case that is now before Alabama's Supreme Court on the Bradford act (page 26) and the argument that is scheduled to begin in Colorado's Supreme Court on Sept. 5 to test the constitutionality of the so-called "labor peace" act (BW—Aug. 19'44, p108).

In addition to the ten states listed below, Massachusetts, Michigan, Pennsylvania, and Mississippi also

have laws regulating trade unions to some degree.

• **Referendums Pushed**—Petitions to put so-called "right to work" amendments, outlawing the closed shop, on state ballots this fall have been circulated in a half-dozen states.

The table below indicates the practical effect of government control on labor unions in the ten states which exercise a more rigid supervision.

State	Financial Statements	Union Membership	Picketing	Assembly	Strikes	Licensing	Penalties for Violations	Legal Status
Ala.	Filed annually; open to public.	Free to join or not join.	No force or threat may be used to prevent any one from working.	No assembly at or near a place of labor dispute forcibly to prevent work.	By secret majority vote reported within 24 hours.		Misdemeanor to participate in or urge an outlaw strike.	Law upheld on one test; another pending (page 26).
Ark.			No force or threat may be used to prevent any one from working.	No assembly at or near place of labor dispute forcibly to prevent work.			Felony, 1-2 years in state prison.	Two convictions upheld by State Supreme Court.
Colo.	Industrial commissioner makes annual examination.	Free to join or not join.	No mass or secondary picketing. Industrial commissioner can limit manner and quantity of picketing.		By majority vote on 20 days notice (30 in agricultural work).		\$50-\$100 fine.	Case to be argued in State Supreme Court Sept. 5.
Fla.	Filed annually; open to members.	Free to join or not join.	No secondary picketing.		By secret majority vote. No force or violence. No jurisdictional strike.	Agents must be citizens of good character, approved by governor.	Criminal.	Case argued in lower court. No decision.
Idaho	Filed annually.		Forbidden on agricultural premises. No secondary boycotting.	No agent may enter premises without owner's consent.			\$300 fine, 90 days.	Unconstitutional (State Circuit Court).
Kan.	Filed annually.		No violent picketing or secondary boycotting.		By majority vote. No sitdowns or jurisdictional strikes.	Agents must be citizens.	Revocation of agent's license.	No decision on case argued in court.
Minn.	Union must report to members.		No interference with marketing of agricultural products.		By majority vote. No jurisdictional strikes.		Labor referee can disqualify union.	No test case.
S. D.	Filed annually.		Forbidden on agricultural premises. No secondary boycotting.	No agent may enter premises without owner's consent.			\$300 fine, 90 days.	Unconstitutional (State Circuit Court) except filing returns.
Tex.	Filed annually; open to members.	Public hearing before expulsion.				Agents must be citizens without criminal record.	Union, \$1,000. Individual \$500, 60 days.	No decision on appealed case.
Wis.			No violence. Majority vote required. Limited to employees.		By majority vote.			Two U. S. Supreme Court tests did not determine constitutionality.

OPA Rents Stick

Loopholes for landlords in new law aren't expected to give agency much trouble. Its power to sue is a deterrent.

Two escape hatches for landlords in the new price control law may give OPA less trouble than professionally gloomy rent control officials predicted (BW-Jul. 1 '44, p15).

• **Not Effective Yet**—One provision of the amended law—directing OPA to adjust rents in cases where “substantial hardship” has resulted from unavoidable increases in costs and taxes since the rent freeze date—does not become effective until Sept. 1.

The other provision—granting landlords adjustments where “peculiar circumstances” (such as rental to an indigent relative) resulted in rents that were lower than those for comparable housing on the freeze date—so far has caused less trouble than OPA officials had expected.

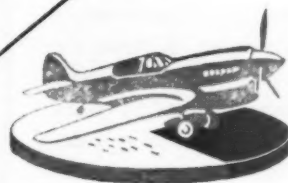
• **Must Have Figures**—OPA is busily interpreting the rent amendments—and the interpretations should help to pull some of their inflationary teeth. Thus, the agency has ruled that no landlord can apply for relief under the “substantial hardship” clause unless he can show cost figures for a full year under rent control. (New York City landlords won't be eligible to apply until Nov. 1.) Higher occupancy rates are expected to offset higher costs and taxes in many cases.

While the “peculiar circumstances” clause hasn't started a gold rush yet, OPA is afraid that it may prove to be a sleeper—particularly since it is designed to improve the lot of persons who are not so well posted on the ups and downs of rent control as are the big rental agencies.

• **Can Sue Landlords**—Not all the new legislation on rent control went against OPA. The price agency can now sue landlords for \$50 or triple the amount of the overcharge (in cases of willful violation) or for \$25 or the amount of the overcharge (if the landlord can prove the violation was unintentional). Previously, only tenants could bring triple-damage rent suits, and inertia or the fear of being turned out in the street in retaliation generally prevented them from bringing such action against landlords.

OPA already has filed over 50 triple-damage suits against landlords and is just getting in stride. Triple damages are regarded as a particularly powerful weapon for use against hotels, boarding

WAR STORY



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OUT OF EACH DOLLAR spent for parts before the war, our national automotive industry spent twenty-five cents in the Cleveland area.

Today, the same plants with facilities greatly expanded produce approximately the same proportion of parts for the aviation industry alone.

Such heavy concentration springs from an unusual combination of basic factors vital to many industries for peacetime manufacturing and distribution. Besides location at the strategic heart of industrial America, the Cleveland area affords abundant natural resources and highly developed industrial services.

Few other areas of similar size, if any, offer so much to so many.

For nearly a century this bank has been privileged to aid in the development of industries located here. Businesses of every type considering relocation or postwar expansion are invited to address us in confidence for further information or assistance.

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The U.S. Navy uses thousands of stencil cutting machines on ships and shore stations for stencil marking everything from a sailor's clothing to supplies and ammunition.

Your shipments should be stenciled for fast, safe delivery. Cut your stencils on a MARSH. Three sizes to meet Government Specifications $\frac{1}{8}$ ", $\frac{3}{8}$ ", 1". Also Fountain Brushes, Inks, Stencil Board. Write for booklet and prices. MARSH STENCIL MACHINE CO., 58 Marsh Bldg., Belleville, Ill., U.S.A.



MARSH

houses, and other multiple dwelling units—and this is where rent control has been weakest in the past. For example, a hotel which overcharged each of 100 guests \$1 a room for a single night's occupancy would be liable for a suit of \$5,000 or for a minimum of \$2,500 if it were able to prove satisfactorily that the overcharge was an unintentional one.

• **Increases Follow Relaxation**—OPA already has experimentally removed rent control in four towns—Sault Ste. Marie, Mich., Crab Orchard, Ill., Malvern, Ark., and Stuttgart, Ark. Surveys indicate that rents in Malvern, which were below rent freeze levels when controls were removed late in 1943, have crept upward again, and controls may have to go back on.

The rent increase in Malvern hasn't resulted from any new influx of population. Apparently, it is the result of a general bidding up for more desirable housing. This, plus the normal increase in the number of new families within the community, was enough to push rents up in the face of the ban on new construction.

• **Lower Rents Doubtful**—While relief may be in sight for consumers in the form of lower prices for many commodities after the war, rent officials see little hope for a general lowering of rents—except for a few war-crowded areas where they have got far out of line. They expect that it will take several years to work off an accumulated housing deficit which dates back to the mid-twenties.

Orders by Air

Written messages sent by radio from station to moving train during experiments on the Chicago, Rock Island & Pacific

Numerous experiments of railroad to speed train communications through the use of radio and electronic telephone systems have taken a new twist with the successful facsimile transmission of written messages (BW—Feb. '39, p35; BW—Apr. 8 '39, p41) from station to a moving train.

• **Meets U. S. Rule**—The Chicago, Rock Island & Pacific Ry. Co. last week staged the first public demonstration of the facsimile sending by radio from Blue Island (Ill.) station to a Kansas City-bound freight train.

In previous radio experiments conducted by the nation's railroads, messages were exchanged orally. Federal regulations require many train communications to be in writing, a condition obviously impossible for radio or telephone communication to meet. Rock Island officials believe facsimile sending by radio has great possibilities.

• **Received in Caboose**—Principles similar to that of a telephoto machine were used in the demonstration. The message, written on a piece of paper, was wrapped around a cylinder, which was part of the transmitter in the station. A photo-electric cell "scanned" the writing.



THE HARVESTERS

In Normandy, British soldiers take a breather from cutting down Nazi legions to aid in another type of harvest—wheat. Although war has burned

broad paths of devastation through the province, the crops in between not only have escaped the torch, but have flourished—an important factor in the emergency relief feeding picture (BW—Aug. 19 '44, p111).

"Pst! Didja know
that Bob Beucus and I
are goin' steady?"



strictly business, though. Bob's V. P. of the Andrew Jergens Co. and I'm a typical Cosmopolitan reader. And we have a lot in common.

This, for instance: I'm young enough to care a great deal about how I look. And *he* sells things like Jergens Lotion, Jergens Creams and Woodbury Facial Soap. ALL designed to help me look good.

Any wonder why Cosmopolitan has been on the Jergens list since 1912? And it's still there today.

Here's why Bob likes me...

I'm young. The majority of Cosmopolitan readers is under 35.

I'm married. To one of the *sweetest* guys . . . (he reads Cosmopolitan, too). So naturally I try to keep myself as purty as possible for him. And I've got more money than the average to spend on the job.

I'm so nice and young!

I'm young enough to TRY ANYTHING that looks good to me. And when I find something I like—why I've got plenty of years ahead to stay with it. See?

It's in the mag!

Cosmopolitan appeals to us young wide-awakes. Good fiction. Fine

writers. We read some of the best best-sellers in Cosmopolitan long before they ever get published!

Isn't it logical? Isn't it sensible? Amn't I just about your perfect dream customer?

All right then. I'll be seeing you.

Cosmopolitan Readers are YOUNG!



Cosmopolitan is where you'll find that whopping high percentage of us under-35's.

Cosmopolitan Readers have

MONEY TO SPEND!



Always have had— they have now—and you can expect him to have it in the future!

Cosmopolitan

GREAT WRITING MAKES GREAT READING!



A CLEAN, SMOOTH FLOOR

Aids Safety Underfoot

The records show that most of the enormous loss in man-days of production due to industrial accidents is *preventable*. Injuries due to falls—nearly one-fifth of the compensated total!—without question could be reduced substantially through more rigid methods of floor care. The irregular, slippery surfaces of grease-caked floors are a constant hazard to worker safety, and they decrease worker efficiency through strain of walking on an unsafe surface. And of course such floors slow up trucking and are a fire hazard as well.

It takes powerful scarifying brushes, like those with which the *Finnell 84-XR Industrial Dry Scrubber* is equipped, to properly rout embedded accumulations of dirt, oil, grease, and shavings . . . and to do the job in least man-hours. The *Finnell 84-XR* is ten times faster than hand-spudding! Has a special type of switch that reverses the motion of the brushes and re-sharpens them automatically. The machine is adaptable to wet-scrubbing, steel-wooling, waxing, and polishing.

For free floor survey, literature, or consultation, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3808 East Street, Elkhart, Indiana. Canadian Office: Ottawa, Ontario.

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PRINCIPAL
CITIES

ing and transformed it into electric pulses. Aboard the caboose, a receiver picking up the impulses, reproduced the message.

A message can be transmitted in the minutes. Two methods of transmitting are available. Radio-transmitted messages can be picked up by a train within 15 mi. of the origin point. Sent by carrier, which employs rails and paralleling wires for the electrical currents, the effective range is 100 mi.

● **Hearing Sept. 13**—For many months railroads have experimented with radio to flash oral orders between freight train crews and dispatchers. Signal engineers estimate that use of radio to communicate between enginemen and caboose crews saves one hour of time in every four running hours.

The results of these experiments will be presented at a hearing Sept. 13 when the Federal Communication Commission will be asked to parcel frequency bands to railroads for permanent licenses (BW—Jul. 15 '44, p73).

● **Rivalry in Types**—A rivalry has developed in the type of equipment to be used. Some railroads experimented with radio, while others lines are testing electronic train telephone systems.

Under the electronic method, high frequency alternating electric currents are transmitted by induction to the rails and to existing wires paralleling the tracks. This system does not require



On a Rock Island freight train bound for Kansas City, a conductor receives a facsimile order during the first demonstration of new application of radio to rail communications operations.

IMPOSSIBLE requests from the drafting room?

A TRANSPARENT FOIL

A RED-LINE PRINT

A BLUE-LINE PRINT

A BLACK-LINE PRINT

A BLACK-LINE INTERMEDIATE

A BLACK-LINE CLOTH

A DRY-PHOTO PRINT

A TWO-TONE PHOTO PRINT



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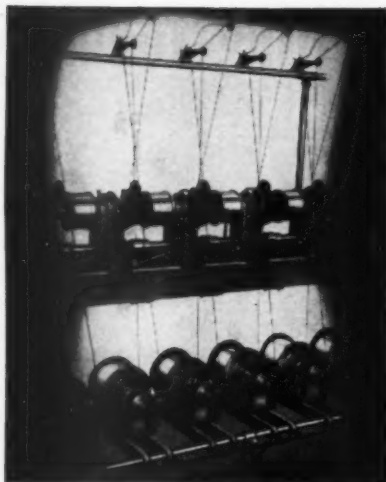


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allocation of wavelengths, as is needed for radio communication. This may be an important factor if a postwar scramble develops among railroads and other industries for allocation of radio channels.

• **Biggest Electronic System**—The largest installation of the electronic system was announced this month by the Pennsylvania Railroad. Costing more than \$1,000,000, the electronic telephones will operate on two of the railroad's main line four-track divisions over the 245-mi. route between Pittsburgh and Harrisburg, Pa. It is the first use of the system on Pennsylvania's main line.

By permitting a constant flow of information and instructions between train crews and tower men, the installation will create a huge communications laboratory for adapting the new system to conditions in one of the nation's heaviest railroad traffic areas. Train telephones will be installed on about 300 passenger and freight locomotives, 90 cabooses, and six wayside towers. Passenger train telephones will be installed only in the locomotive with the air whistle providing intratrain communication.

• **Handicaps Removed**—Pennsylvania didn't move the system onto its main line until after two years of experimental use on its Belvidere-Delaware branch in northern New Jersey (BW—Feb. 26 '44, p. 48).

The system was developed through the pooling of resources of the Union Switch & Signal Co. and General Electric Co. Its efficiency has been improved so as to remove handicaps to its use in high static locations, such as electrified trackage or dense industrial areas, Pennsylvania officials claim.

Break for Power

Electric utility industry gets limited amount of material to bring systems to standards deferred by war curbs.

The first break in the stringent restrictions which have governed new electric power installations for the past three years came last week when the War Production Board allowed a limited amount of material for a supplementary power program.

There is no indication of what the new program will total in dollars, but for the first time since 1941, material and manufacturing capacity will become generally available to the electric utility industry.

Heretofore, all allocations have been tightly earmarked for necessitous situations—a generating unit to bring capacity up to scratch here, or a transmission line elsewhere to interconnect two systems and cut down line losses.

• **Aim of Program**—The aim now is to bring utility systems up to standards they would have met during the past three years had there been no restrictions.

This will take a long time under the limited grant of extra materials, but the Office of War Utilities will make a start by authorizing extra generation equipment on the basis of fuel savings or on the basis of the perilously low margins of reserve capacity which should be raised.

• **More Capacity**—It's a rule of thumb in the normal operations of the power

What's Happening to the Cost of Living

	Food	Clothing	Rent	Fuel, Ice, & Elec- tricity	House Fur- nishings	Misc.	Total Cost of Living
August, 1939.....	93.5	100.3	104.3	97.5	100.6	100.4	98.6
January, 1941*	97.8	100.7	105.0	100.8	100.1	101.9	100.8
July, 1941	106.7	104.8	106.1	102.3	107.4	103.7	105.3
July, 1942	124.6	125.3	108.0	106.3	122.8	111.1	117.0
July, 1943	139.0	129.1	108.0	107.6	125.6	116.1	123.9
August	137.2	129.6	108.0	107.6	125.9	116.5	123.4
September	137.4	132.5	108.0	107.6	126.3	117.0	123.9
October	138.2	133.3	108.0	107.8	126.7	117.6	124.4
November	137.3	133.5	108.0	107.9	126.9	117.7	124.2
December	137.1	134.6	108.1	109.4	127.9	118.1	124.4
January, 1944	136.1	134.7	108.1	109.5	128.3	118.4	124.2
February	134.5	135.2	108.1	110.3	128.7	118.7	123.8
March	134.1	136.7	108.1	109.9	129.0	119.1	123.8
April	134.6	137.1	108.1	109.9	132.9	120.9	124.6
May	135.5	137.4	108.1	109.8	135.0	121.3	125.1
June	135.7	138.0	108.1	109.6	138.4	121.7	125.4
July	137.4	138.2	108.1	109.8	138.5	121.8	126.1

Data: U. S. Bureau of Labor Statistics; 1935-39 = 100.

* Base month of NWLB's "Little Steel" formula.

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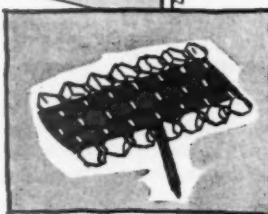
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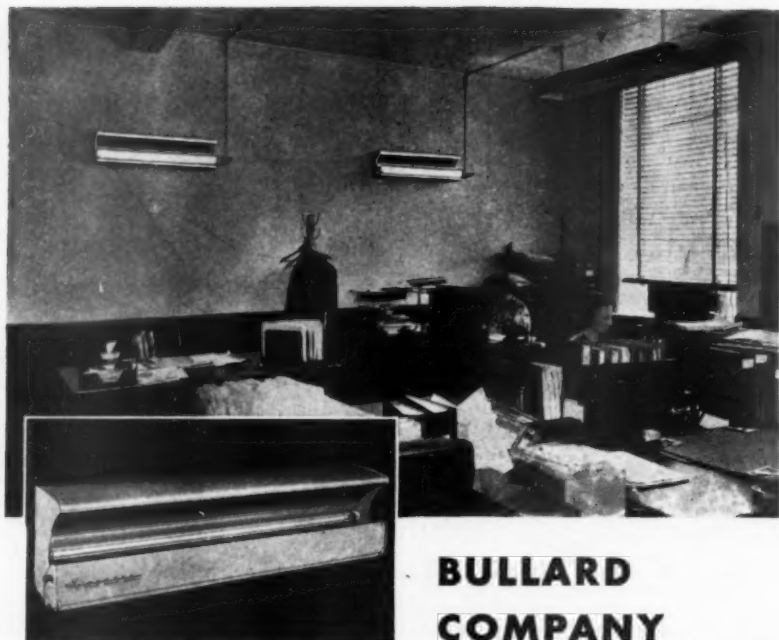
WRITE today for this book! It's written for people who want to know about the new construction methods and building materials, but who don't understand professional terms. To get it mail the coupon, enclosing 10¢ for mailing and postage. Or get a copy from your building material dealer. He's the local Gold Bond Representative, your friend in the building business. National Gypsum Company, Buffalo 2, New York.

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If body resistance is high, the germs are rendered harmless. If resistance is low sickness often results.

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Executives faced with the responsibility of reducing sickness, absenteeism and maintaining production will find an able helper in ultraviolet germicidal radiation as produced and directed by HYGEAIRE System.

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Court Rooms	Food Processing Plants	Nurseries	School Rooms
Conference Rooms	Hospitals	Packing Plants	Tool Rooms
Dairies	Hotels	Passenger Coaches	Waiting Rooms
Dormitories	Invalid Rooms	Pullmans	Wash Rooms
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business that \$2 is spent for transmission and distribution equipment for every \$1 spent on generation, and OWU expects that this rule of thumb will also apply in the new program. Thus, considerable system strengthening, enlargement, and improvement are in prospect.

Larger conductor will be installed, or additional feeders or duplicate service lines will be built. A spare transformer will be installed where the potential breakdown without it is now more important than the material used in the transformer. Service will be improved by the installation of voltage regulators, static capacitors, or circuit breakers, which up to now have been so scarce that their use in normal preventive or precautionary applications was not warranted.

● **No Extra Labor**—Generally, OWU will scan applications under the new program with an eye to replacement of the most inadequate or obsolete equipment and the reduction of service hazards.

Utilities in Group I and II labor shortage areas will be confined to projects which their existing labor forces can handle. No additional workers will be made available to put in new equipment not absolutely demanded by the war program.

● **Priority Ratings**—While the new program will be scheduled along with the existing war power program (BW—Jul. 24'43, p17) and rated similarly at AA-5, a few projects—mostly generation—will be approved with AA-5 ratings.

These will be projects in which no imperative need for the equipment can be demonstrated but where real hardship can be shown. There are, for instance, a few half-completed generators which were down-rated two years ago in the big slash of the war power program (BW—Aug. 15'42, p13). Most of the material for these is on hand, so that the Office of War Utilities will allow their completion and final settlement of contracts which have been dangling for months.

● **Typical Cases**—In some cases, small municipal systems or industrial plants, whose requirements for small steam turbines or diesel-powered generators were most directly in conflict with the pressing marine propulsion program, have come to a point at which the financial hardships entailed in continued operation are greater than the situation can longer justify.

These instances will be cared for under AA-5 ratings. The AA-5 rating, in practical effect, will be about as good as the AA-3 rating, since all power equipment is and has been scheduled since the war power program was intensified.

More Child Care

3,102 units now serve 129,357 children while mothers aid war effort. U. S. increases its share of the cost.

During the school vacation period this summer more child care centers have been made available to war-working mothers.

National figures compiled by War Public Services of the Federal Works Agency list 3,102 units handling 129,357 children. Last September only 43,000 children were enrolled.

• **Ease Labor Problem**—Two-thirds of these federally assisted child care projects are in areas where labor is short or stringent, and where many women have taken jobs in war plants or in essential civilian services.

Lack of child care services was a major cause for the inability of war plants to hold women workers in 69 of 116 communities surveyed by the War Manpower Commission.

• **U. S. Increases Aid**—Continued depletion of nursemaids' ranks by desertions to better-paying jobs, and the summer closing of schools, increased the child care problem this year, and the federal government assumed a larger share of the cost of the program.

U. S. funds allotted under the Lanham act augment local contributions and fees paid by parents (usually 50¢ a day for standard service). Federal allotments between August, 1942 (first allotment), and June 30, 1944, under the Lanham act, have been \$30,023,271 for maintenance and operation,

plus \$2,447,441 for new construction.

• **Typical Setup**—The Detroit project is a typical setup, where each month 47 nurseries take care of an average of 1,175 youngsters two to five years old and 30 "canteens" keep 1,000 school-age boys and girls out of mischief.

The units are housed in 36 schools, ten churches, and ten housing projects, near factories, residences, or transportation routes. The budget for the two years ending March, 1945, is \$1,669,677, of which the federal government will pay \$1,276,338.

• **Canteen Instruction**—When a Detroit mother brings her little boy to the nursery, he gets a health inspection and an identification tag. Breakfast or sleep follows, and at 10 a.m. games or stories. Then a morning snack, cod liver oil, and outdoor play. There is a rest period on cots just before lunch, a nap and a sandwich and more play in the afternoon. The fee is 50¢.

Older children in the canteens have handicrafts, dancing, hobbies, books, and trips.

• **Guide to Jobs**—Kansas City has printed several pamphlets that describe the work and location of its child centers and, in addition, tell mothers where to get war jobs.

Kansas City operates its 15 nursery centers and 24 school-age centers between 7 a.m. and 6 p.m. daily except Sunday. The two-year budget calls for expenditure of \$737,864 of which the federal government will pay \$536,016.

New Orleans has 14 centers caring for 830 children on funds that are provided 10% from parents' fees, 43% from the city, 47% from federal grants.

• **Financing in Baltimore**—Baltimore, another center of shipbuilding, has



At a typical government-aided nursery in Kansas City, preschool children are amused by stories, games, and instructive devices while their parents work.

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used no city funds, meeting its budget of \$119,216 with 45.8% from parents' fees, the rest from Lanham act funds.

Richmond, Calif., has 27 centers that care for 1,052 children. During the first year of operation it spent \$190,801, of which \$122,480 was paid by Washington, and \$68,321 came from parents' fees.

● **Too Many Units**—Vanport City, Ore., a war housing community of 30,000 (BW—Jun.24'44,p47), built six nurseries a year ago but finds that it needs only four of them, partly because some parents are not interested.

Average enrollment has been 400, with 700 in the school-age group. Yearly expenditure is met by \$130,000 from state and county funds and \$630,000 from Washington.

● **Postwar Outlook**—Denver has six centers and is looking for space for more as it has a waiting list of 50 children.

To care for 235 children in the past 13 months, Denver spent about \$80,000 of which the Lanham act provided \$52,112.

Denver is convinced that the program will become permanent, despite the fact that the Lanham act expires six months after the war ends, because many of the mothers who are patrons of the centers are widows of men killed in service—women who must continue to work outside the home.

Fury in Omaha

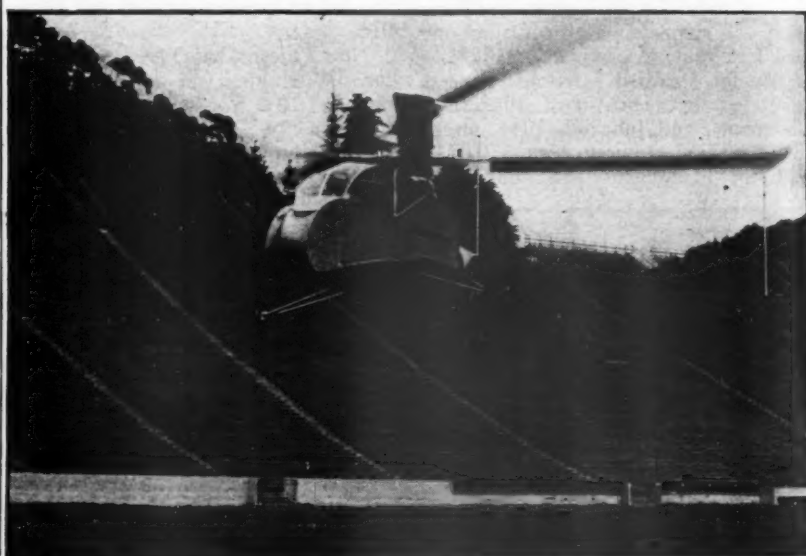
Purchase of Nebraska Power Co. as municipal utility is proposed in midst of feud of company and publisher.

Nebraska Power Co., \$40,000,000 American Power & Light Co. (Electric Bond & Share system) subsidiary with headquarters in Omaha, is in the spotlight again.

● **Based on Necessity**—Since the establishment of former U.S. Sen. George W. Norris' "Little TVA" in Nebraska, the Consumers Public Power District, as the grid development was called, has made several attempts to take over Nebraska Power.

Consumers Public Power District's interest in plans to buy Nebraska Power was based on necessity. According to most reports, Consumers Public Power has been unable to furnish a firm source of power from its hydroelectric developments on the Loup, Niobrara, and Platte rivers, and the lines connecting the hydroelectric plants to Nebraska Power's steam plant have more often than not carried N.P.C. current to meet Consumers Public Power demands.

● **Purchase Barred**—Omaha interests opposed the purchase, claiming to fear



"HOMEMADE" HELICOPTER

Hovering over the University of California stadium at Berkeley is the first helicopter to emerge from shops on the West Coast. Its designer is 19-year-old Stanley Hiller, Jr., who is associated with his father in the die-

casting firm of Hiller Industries. Built of tubular steel and fabric, the 12-ft. craft has a 90-hp. Franklin engine which drives two 25-ft. opposed rotors. Tests show that it is capable of doing 100 m.p.h., according to young Hiller who calls his new helicopter the "Hiller-copter."

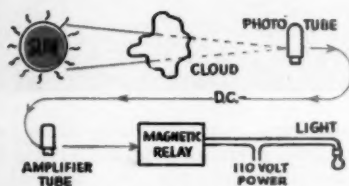
How would you use these 3 industrial electronic servants?

UNITED CINEPHONE CORPORATION, of Torrington, Conn., has developed three simple electronic devices that almost every industrial plant can — and some day will — use to advantage

The **Sun-Switch** turns factory or office lights off or on automatically when outdoor light rises or falls, avoiding poor work caused by bad visibility or eye fatigue.

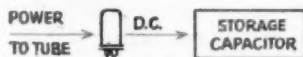
It can also be used to switch on or off aircraft beacons, and outdoor lighting of all kinds.

What Is It? The "Sun-Switch" is a phototube device, in which a change of light is used to operate a magnetic switch. The tubes are: an RCA type 930 phototube followed by an RCA 6SJ7 detector-amplifier and an RCA 6SN7-GT amplifier.

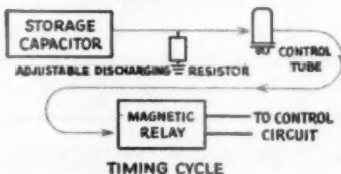


How It Works: When sufficient light strikes the phototube, its output, amplified by the following tubes, operates a magnetic relay which turns off the lights. When the light striking the phototube decreases to a preset level, the lights are switched on again. The light-level range is adjustable.

Electronic Timer: The United Cinephone electronic timer accurately time-controls operations of machine tools, molding presses, ovens, electronic heaters, photographic printing, etc. Two or more timers can be connected to provide automatic sequences. Time interval is adjustable from 0.05 to 100 seconds. Avoids human error. Easy to set; wide range; no resetting needed; hundreds of thousands of operations with virtually no maintenance.



CHARGING CYCLE

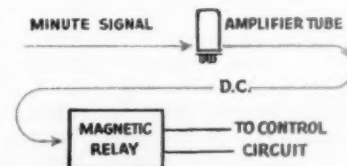


TIMING CYCLE

How It Works: An RCA 6J5 amplifier tube is used. It first acts as a rectifier, supplying d-c to a storage capacitor. When the time interval is "initiated" by the initiating switch, the stored energy is dissipated through an adjustable resistor. When the voltage across the storage capacitor thus drops to a preselected value, the tube supplies current to operate a sensitive magnetic relay.

Electronic Switch: For reliable switching where a tiny current can replace heavy currents or mechanical devices. Only 3/1,000,000 ampere will actuate the electron tube which operates the relay.

The small current replaces heavy currents required in some chemical processes or machine or gauging operations where a relay is actuated directly. Excellent for floatless control of liquid levels, pressureless limit-switching, and to replace clumsy, slow, leverage systems. Operates up to 800 times per minute; has exceptionally long life and low maintenance. Widely used in industry.



How It Works: A tiny current flowing through the external circuit and through a very high resistance (1 million ohms or more) develops enough voltage across the resistance to control the current flow through an RCA 6J5 detector-amplifier tube. The tube current operates a magnetic relay.

The magic brain that powers these devices is in each case an RCA Electron Tube

Have you a problem?

Industrial electronics, already widely accepted, is destined to play a giant's role tomorrow. If you suspect that measuring, counting, weighing, sorting, controlling, heating, or some other mechanical or manual operation in your plant can be more accurately, efficiently, or profitably performed "the electronic way," you are probably right. Why not write to us, stating your problem, so we can refer you to the equipment manufacturer best fitted to serve you?

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The Magic Brain of all electronic equipment is a Tube ... and the fountain-head of modern Tube development is RCA.

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OF AMERICA

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an increase in power rates to provide "a fair return" on the combined properties. These interests succeeded in pushing a bill through the state legislature which prohibits "any public power district from purchasing an electric utility in the metropolitan city of Omaha."

• **Sound and Fury**—Soon, however, out of what apparently started as a personal dispute between power company officials and the publisher of Omaha's only daily newspaper came an effort of the newly formed People's Power Ownership Committee to have the City of Omaha take over Nebraska Power Co. as a municipally owned utility.

This private fight grew in sound and fury, but Nebraska Power Co. succeeded in cooling the ardor of the newspaper-sponsored municipal ownership fans with an injunction secured in county court. The decision was appealed, but has not yet come before the higher court.

• **Plan Direct Deal**—Last week it was announced, in the midst of negotiations for a new street-lighting contract with the city, that a group of Omaha citizens is considering the formation of a nonprofit organization to negotiate for direct purchase of Nebraska Power Co. from its eastern owners.

The Omaha group is counting on the holding company "death sentence" act for a lever to force the sale.

HETCH HETCHY MUST ACT

San Francisco next week faces a deadline that is giving municipal officials and taxpayers plenty to worry about. By Aug. 28 the city must find some legal arrangement to sell power from its Hetch Hetchy hydroelectric plant, which has long been embroiled in difficulties arising from its doubtful status as a municipal project located on federal land.

The city's problem is that it has no distribution system. The only lines available are those of Pacific Gas & Electric Co., which formerly bought the plant's output for \$2,400,000 a year (BW—Jul. 22 '44, p. 22). Later, when federal courts held that private distribution of Hetch Hetchy power was illegal, the city got out of its difficulty by finding a new customer, a government-owned aluminum plant at Riverside, Calif.

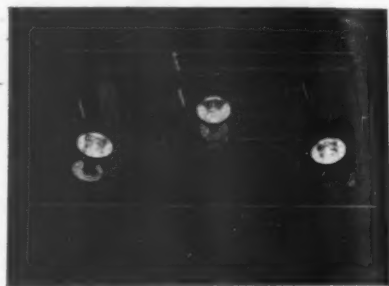
Now WPB has ordered a shutdown at the Riverside plant, and San Francisco—without a customer for its power—faces the loss of \$2,400,000 revenue annually. Taxpayers are anxiously awaiting the decision on Hetch Hetchy, while city officials are seeking a compromise—possibly a lease arrangement with P.G. & E.—acceptable to the federal court.



FOR EASY STARTS

Simple infrared heating pits in Philadelphia Transportation Co.'s storage yard (above) keep buses warm for easy cold-weather starts. Each 27x42 x16-in. unit (right) contains three 250-watt drying lamps which direct heat on its engine when a bus is parked over the pit. Unable to build more garages because of war restrictions, the transit firm rigged up the novel system to accommodate its growing fleet. This installation cost

\$3,000, operates for \$7.56 a day, and saves about 5,000 gal. of gas which is the amount that would be needed to idle engines all winter.



MACY EXPANDS IN SOUTH

R. H. Macy & Co. of New York City, world's largest department store, is expanding in the South. Through its wholly owned subsidiary, Davison-Paxon Co., one of the South's outstanding stores and the second largest in Atlanta in point of retail sales, Macy's last week bought the Saxon-Cullum Co., oldest and largest store (60,000 sq. ft.) in Augusta, Ga.

The purchase, according to Charles H. Jagels, president of Davison-Paxon, reflects confidence that the South in general and Georgia in particular will hold its wartime gains after the peace. The Augusta outlet will be operated under the name of its Atlanta owner.

In the 1943 fiscal year, Davison-Paxon's sales, exceeding \$11,000,000, second only to Rich's in Atlanta, accounted for a little better than 6% of Macy's gross volume. A similar portion was accounted for by the Lasalle & Koch Co. of Toledo, Ohio, while Bamberger's of Newark contributed better than a quarter of Macy's total volume.

Lasalle & Koch was the first store out-

side New York in which Macy's obtained a controlling interest (1923), but Davison-Paxon was the first wholly owned subsidiary (1927). Bamberger's was not acquired until 1929.

BUY CANADIAN VICKERS

OTTAWA—A Canadian group headed by Roy M. Wolvin, former president of the British Empire Steel Corp. and now head of several shipbuilding companies, has bought out Canadian Vickers Co. from Losanac Ltd. which has held the stock for the Solvay interests of Europe. The purchase reportedly gives the Canadians working control of the company.

The new owners will take part in planning the postwar activities of Vickers, which are expected to include continuation of shipbuilding. The company recently obtained orders for several cargo vessels from Brazil (BW—Jun. 24 '44, p. 112), and it would probably share in Netherlands orders for similar vessels should a deal for about 30 now under discussion materialize. This is a contract originally claimed by Henry J. Kaiser (BW—Apr. 1 '44, p. 24).

OCD Stands By

Possibility of raids on coasts prevents release now of all but a few items of agency's vast accumulation of supplies.

As danger of air raids has waned, so has the interest of volunteers in the Office of Civilian Defense. This brings to the fore another problem of surpluses: What's to be done with the vast accumulation of supplies gathered by the OCD when coastal attacks by the Japanese and Nazis appeared likely.

• **Owned by U.S.**—At the peak there were about 6,000,000 volunteers for whom the OCD bought \$52,327,000 worth of equipment. All but \$9,825,000 worth was distributed to states and communities.

But Uncle Sam still owns the entire lot and may call for its return or allocation at any time. The portion distributed is in the custody of state and local property personnel who are bonded and responsible for its care.

• **On Standby Basis**—OCD officials report that the organization is on a standby basis since it has received no orders to disband.

Between the Rockies and Alleghenies there probably will be few more practice calls for the protective division, which takes over in the case of air raids. Along the coasts there will still be raid alerts but these are now restricted to not more than one every 90 days.

Washington takes the view that OCD cannot yet be abolished because there remains a possibility of propaganda attacks by the Nazis along the coasts, and of sabotage bombings of war plants in any part of the country.

• **Few Items Released**—Recent disasters have given the OCD some practice. Its work in connection with the Ringling Bros. circus fire at Hartford, Conn., and the munitions explosions at Port Chicago, Calif., have been commended. On these and other occasions the OCD cooperated with the Red Cross.

Since the emergency for which OCD was created has not wholly passed, only a small amount of its equipment has been released. The items so far sold as surplus were some hospital beds turned over to Treasury's Procurement Division and sold in Chicago.

• **Pumps in Demand**—There is a clamor for OCD fire-fighting equipment and some of this is being released to the Army and Navy.

The OCD bought both hand and power fire pumps. It paid \$8,143,000 for 2,262,000 hand pumps attached to 4-gal. water tanks. Stirrup pumps (which

A MESSAGE TO TEXTILE MILL OWNERS

"Daylight with Insulux"



DAVENPORT CLOTHING MILLS
CHATTANOOGA, TENN.

NOW IS THE TIME
TO INSTALL
INSULUX
GLASS BLOCK

SAVE 5 WAYS

- 1 **SAVE FUEL**—Better insulation means less fuel loss.
- 2 **SAVE UPKEEP CHARGES**—Easy to clean—and to keep clean. No painting required.
- 3 **SAVE MAN HOURS**—Better light control insures better working conditions.
- 4 **SAVE SPOILAGE LOSSES**—No infiltration of dust or dirt.
- 5 **SAVE REPLACEMENT COSTS**—Panels of Insulux do not rot, rust or corrode.



Insulux Glass Block is a functional building material—not merely a decoration. It is designed to do certain things that other building materials can not do. Investigate!

OWENS-ILLINOIS
INSULUX
GLASS BLOCK



DO THIS—and save! Replace worn-out or faulty windows with Insulux Glass Block.

Insulux, being a hollow glass unit, has high insulating value. This reduces heat loss and condensation. And it brings a saving in the cost of air conditioning.

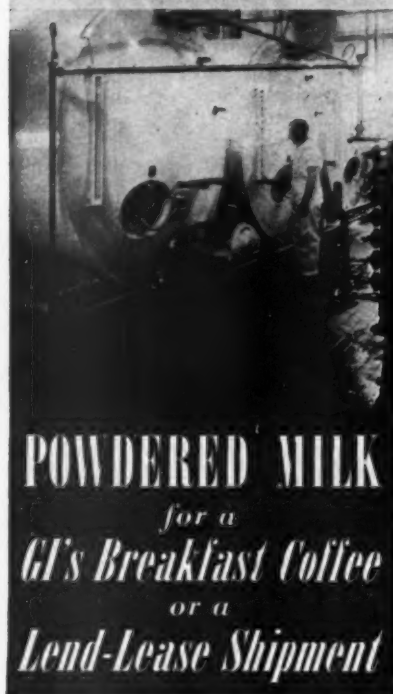
Panels of Insulux have other advantages, too. They provide good daylighting and full use of floor space. They guard against the infiltration of dust and dirt. They are fireproof—non-combustible. They do not rot, rust or corrode. And they are easy to clean—and to keep clean.

MAIL COUPON FOR FREE BOOKLET
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Insulux Products Division, Dept. 46, Toledo, Ohio
Gentlemen: Please send, without obligation, your book entitled, "Methods of Replacing Worn-Out Windows with INSULUX Glass Block."

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Firm Name _____
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Battery of Pfaudler Glass-Lined Storage Tanks with a capacity of 75,000 lbs. of milk at The Todd County Dairy Cooperative, Brewerville, Minn., which handles the skim milk output of 13 member creameries. Temperature rise of milk stored in these tanks is less than 2° in 16 hours.



POWDERED MILK for a GI's Breakfast Coffee or a Lend-Lease Shipment

PFAUDLER EQUIPMENT Serves America's "Milk Powder Arsenal"

To boost our annual milk powder production to its anticipated 700,000 pounds per year . . . and to do it in a hurry . . . meant building many new milk powder plants, each capable of handling either the whole milk or skim milk output of several nearby creameries. To Pfaudler, because of its long experience and production facilities of its two plants, came a large share of the rush orders for the all-important Glass-Lined Steel and Stainless Steel Milk Storage Tanks.

Working closely with the dairy industry for 25 years, Pfaudler is recognized as a leader in the manufacture and engineered application of equipment which meets the strict sanitary codes of that industry.

Whether you are engaged in processing a dairy product, in chemical processing, in making beverages, drugs or pharmaceuticals, it will pay you to investigate Pfaudler Glass-Lined Steel and Alloy Equipment. Write The Pfaudler Co., Rochester 4, N. Y.



A request on your company letterhead, giving your title, will bring a FREE copy of "The Glass Lining," the Pfaudler magazine for those engaged in the manufacture or processing of a hard-to-handle product.

PFAUDLER

ENGINEERS AND FABRICATORS OF
CORROSION RESISTANT PROCESS EQUIPMENT

are used in conjunction with buckets of water) were not bought by the OCD but by individuals and private companies. Both types have postwar value as water-using extinguishers for homes. The stirrup pumps also are in demand as sprayers for gardens; it is doubtful that the tank pumps can resist the action of spray chemicals.

• **What Services Want**—The armed services aren't going to fight civilians for the hand pumps. What they want is their share of the 17,500 power pumps. These are valuable for fighting fires in combat area installations and as protection for captured towns.

So far only the Army and Navy have been given these pumps. They are important at home as extra equipment for war plants, for fighting forest fires, for additions to the equipment of small towns which have over-size war industries. Municipalities probably will be able to buy these pumps later—though some fire chiefs won't be enthusiastic about them because they lack the red paint and the dash of regulation equipment.

• **Hose and Helmets**—The OCD also bought 10,500,000 lengths of fire hose but the postwar utility of this is doubtful. It is an emergency product of single-jacket cotton and reclaimed rubber, hence will deteriorate rapidly. The government will be lucky to recover any of the \$3,900,000 cost.

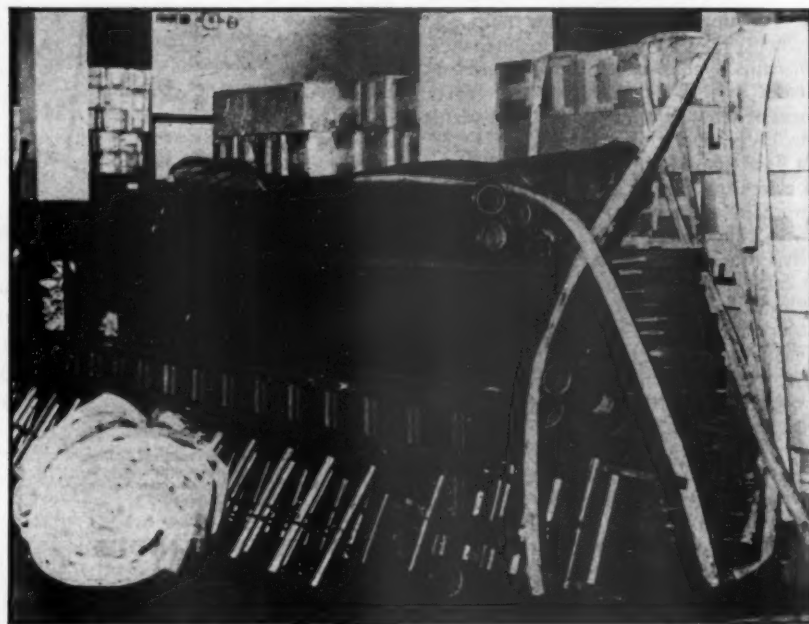
Only items furnished air raid wardens by the OCD were helmets, gas masks, and arm bands. There is little promise of recoveries from the 4,616,000 masks

and the same goes for the arm bands. But there might be a small return from the 2,704,000 helmets. These are not usable on the war fronts because they are not properly shaped for full head protection and are not made from special steel. (The OCD helmets were stamped out of old automobile fenders.) They are worth a fraction of the cost as steel scrap, or perhaps the government could sell them to the wardens as souvenirs. One suggestion advises giving the helmets to the wardens since the expense of collection and shipping would be considerable.

• **Typical Problems**—The bulk of the remaining OCD equipment consists of medical supplies, stretchers, hospital cots and beds, mattresses, first-aid pouches, infant respirators. Whether sold or given to health and rescue agencies, this material will remain a national asset.

The situation in Cleveland, Ohio, presents typical problems. Relieved of active duty, OCD volunteers in that city are worrying over what is to become of \$2,000,000 worth of U. S. material. This equipment lies idle and vulnerable to the hazards of theft, loss, and age. Much of it could be usefully employed, especially on the war fronts. A start has been made toward unfreezing this accumulation. Of 228 pieces of heavy fire-fighting equipment, 54 have been tagged for shipment, presumably to occupied countries.

Clevelanders are not only worried about the cost of government material tied up. The defense program is costing



Ladders, hose, and other civil defense equipment worth more than \$52,000,000 present storage problems that will soon become problems of surpluses.

Cuyahoga County about \$151,000 this year.

• **OCD's Current Job**—Idle equipment is the problem of OCD's protective division. There remains plenty of work for the OCD's service sections. Their activities include sale of war bonds, car sharing, gas and rubber conservation, scrap collection, Victory gardens, recreation for war workers, preinduction training and counsel for draftees.

Dogfish on Top

Lowly shark takes place of big-livered soup-fins as the chief U. S. source of vitamin A. Fishermen prosper.

Once considered a pest by fishermen because of its destructive habits, the lowly dogfish shark now is the chief source of the nation's vitamin A.

• **Soup-Fins Surpassed**—This small member of the shark family, which ranges up to 4 ft. in length, has surpassed the soup-fin shark, supplier of 42% of the vitamin A output in the U. S. in 1943.

Up to June 30 of this year, dogfish shark livers accounted for 9.7 trillion units of vitamin A and the soup-fin shark livers but 8.6 trillion.

• **\$1,520,000 Value**—The United States Fish & Wildlife Service reports that dogfish shark fisheries at Seattle, Wash., purchased 2,816,000 lb. from Jan. 1 to June 30. Valued at \$1,520,000, the dogfish purchases were about four times the total of soup-fin shark livers purchased in the same period.

The rise of dogfish liver purchases continues to reflect the decline in the soup-fin shark industry that became evident last fall because of the depletion of this large-livered shark off the Florida and West coasts (BW—May 6'44, p. 39). Purchases of soup-fin livers fell from 685,000 lb. in the first six months of 1943 to 369,000 lb. in the first half of 1944.

• **New Income**—Even larger catches of dogfish shark are expected in the remaining months of this year. A continued decline is forecast in the catches of the soup-fin shark.

And the once-spurned dogfish is proving a source of new income for many fishermen. So lucrative, in fact, that boats normally engaged in other industries now hunt them down. The livers weigh from 1½ lb. to 3 lb. depending on size of the shark.

In the first months of 1944, Seattle fishermen were paid an average of 54¢ per lb. for dogfish shark livers, as compared to 38¢ per lb. in 1943.



Don't toy with
SAFETY!

AUTO accidents are innocent fun when staged by children at play. In real life they are costly and tragic—and still much too frequent. Though you drive less under gasoline rationing, you still face all the hazards, and the threat of disastrous loss an accident can cause. You still need the protection insurance can give—and you can now obtain it at low wartime cost.

Sound, economical protection is assured by Hardware Mutuals policy back of the policy—a way of doing business that makes your interests our first consideration. It means nation-wide service by experienced, full-time representatives. Its basis is good management—and a careful selection of risks that has returned substantial dividend savings to policyholders. It means

prompt and sympathetic settlement of claims without trouble or red tape.

In other types of insurance also, dividends can represent important savings. For example, if your home fire insurance is not in line with today's increased property values, you may be able to increase your coverage at no extra cost—because Hardware Mutuals dividend savings to home owners, as well as to automobile owners, have always been substantial.

Take advantage of the savings and service you'll gain through the policy back of the policy. Let the Hardware Mutuals representative help you plan the full insurance protection you need.

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Compensation, Automobile and other lines of non-assessable
CASUALTY AND FIRE INSURANCE

AGRICULTURE

Pills for Planting

Mechanization of sugar beet farms advanced by pelleting of seed and use of machine for thinning out plants.

Experimental mechanization of the sugar beet industry is progressing, with proved devices ready to hit the industry in waves once the war is over and manufacturers are free to supply the market. This has political as well as economic significance because it should reduce the beet sugar industry's reliance on tariff protection.

• **"Pelleted" Planting**—Of two recent developments, one will not have to wait, should experimental work this year show it adaptable to the entire industry.

This is the "pelleting" of sugar beet seed to form smooth pills that will glide from the hoppers of mechanical planters at even intervals and allow the farmers to take full advantage of another improvement only recently developed, the segmenting of seed into single seed germs.

• **Even Spacing**—Sugar beet seeds in nature come in woolly, irregular balls, each inclosing several seed germs. Plants from such seed come up in clumps, so close that surplus plants must be removed by hand—slow, back-breaking work.

Machines developed three years ago by Roy Bainer, a U. S. Agriculture Dept. experimenter, now successfully crack the seed into single segments, which produce single plants and so lessen the work of thinning, and bring it within the province of machines. However, these single segments still are woolly, irregular-shaped bits that may hang up in mechanical planters, or fall out in groups, thus resulting in irregular spacing of plants in the rows.

• **Mechanical Coating**—M. J. Buschlen, agricultural supervisor of the Farmers' & Manufacturers' Beet Sugar Assn., composed of growers and processors in Michigan, Ohio, Indiana, and Wisconsin, thought up the answer to that one. If the single seed segments each could be inclosed in a beneficial and inert material—something which would melt away easily in the ground once planted, and which for planting would make smooth "pills" or pellets of the seeds—the problems of spacing could be largely overcome.

Buschlen was successful. Mechanical coating made white pills out of beet seed. Preliminary field tests last year indicated that an almost absolutely smooth, even flow of seed could be secured. This spring, hundreds of acres of pelleted seed were experimentally planted all over the beet sugar areas from Ohio to California.

• **Soil Problem**—Western companies still regard the process as experimental, one question being whether the pelleting material, which easily melts from around the seed in damp midwestern soils, and thus permits emergence of the seedling, may not have more restraint in the dry western soils.

Experimentation so far, however, is encouraging.

• **Machine for Thinning**—Even with perfect seed stands (something never achieved save perhaps in an experi-

mental way with this spring's "pelleted" plantings) the beet farmer must over-plant, to take care of failures to germinate. So he probably will always have the problem of thinning out his plants.

Plants from single seed, however, stand far enough apart to be "knocked out" by machinery. In this connection, the big development of 1943-1944 is the discovery that a cotton-chopping machine made in Dallas can readily be adapted to thinning stands from singled beet seed.

• **Hoe With a Seat**—This is the Dixie cotton chopper made by the Dixie Cotton Chopper Co. characterized by the company as a "hoe with a seat on it."

As the tractor-drawn chopper (up to three machines can be drawn by one tractor) moves along the rows, a set of four crooked knives that look like reversed swastikas, descend into the soil, and hook out the unwanted plants.

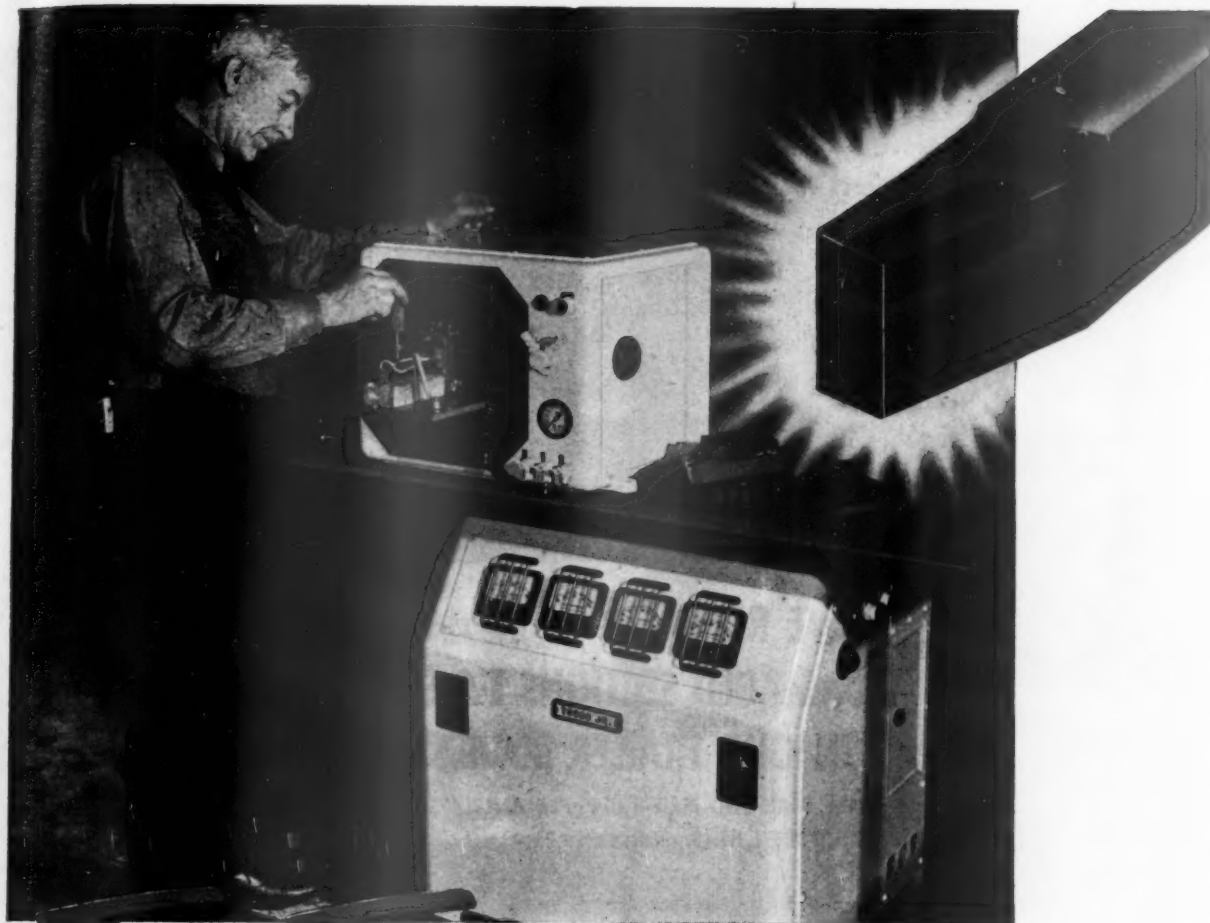
The knives can be set to sweep the



Rows of whole and cutaway sugar beet seeds demonstrate (left to right) how they're divided into single germs—to save thinning—then are coated with an inert material that makes me-

chanical planting possible. With three tractor-drawn thinning machines (below) four men can weed out the excess beet plants in six rows during each sweep of the fields.





TOOL-TIPPING ... 5 TIMES AS FAST WITH "TOCCO"

IN the brazing of carbide tool tips, a large automobile and aircraft manufacturer formerly required 5 men at 8 hours each, or a total of 40 man-hours per day ... Today, with TOCCO, 1 man does the same amount of work in 8 hours ... Saving 32 man-hours per day.

TOCCO brazes tool tips with the same efficiency that it does a multitude of heat-treating tasks. At the push of a button, it heats standard size tool tips to brazing temperature in 10 to 30

seconds for a tight, uniform braze. Clean, cool and compact, the TOCCO machine can be located handy in tool room or production line to speed output and minimize motions.

NEW LOW-COST TOCCO

The 7½ K.W. TOCCO JR. shown above is ideal for brazing tool tips and heat-treating many small machine parts. Power unit can be located under a bench, out of the way. Detachable work unit can be mounted on work bench as shown above. Like larger TOCCO units, it is of rugged motor-generator type, assuring dependable, low-cost operation. Fully described in Bulletin 16A, free on request.

THE OHIO CRANKSHAFT COMPANY

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TOCCO

HARDENING..BRAZING
ANNEALING..HEATING





T. G. O'BRIEN, Fleet Superintendent

"WE REPLACE DAMAGED SECTIONS FAST ON OUR TRAILER BODIES..."

LESS THAN TWO MAN-HOURS PER PANEL," SAYS
T. G. O'BRIEN, Fleet Superintendent for Hagstrom Food Stores

Hagstrom
FOOD STORES INC.
CHICAGO 6, ILLINOIS
EST. 1938

Lindsay & Lindsay
Engineers, Inc.
Chicago 6, Illinois

Comments: These panels are so light and strong, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours.

On the reason of this fleet to have so many trailers, it is because of the fact that they are so light and strong, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours.

It is one of the most important things to have a fleet of trailers that can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours. They are so light, they can be replaced in less than two man-hours.



bodies or replacements possible.

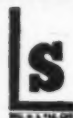
With Lindsay Structure, you can rehabilitate your trailer fleet in these three ways:

1. Mount new Ls bodies on your old chassis
2. Build new Ls bodies on new standard chassis
3. Add to your fleet with new light-weight Ls trailers

Consult the Lindsay Structure Fleet Engineering Service for the solution to your fleet problems. Send drawings and data to Lindsay and Lindsay, 222 W. Adams St., Chicago 6, Illinois; or 60 East 42nd Street, New York 17, New York; Lindsay Structure (Canada) Ltd., 307 Dominion Square Bldg., Montreal.

EASY TO ASSEMBLE

LINDSAY



STRUCTURE

U. S. Patents 2017629, 2263510, 2263511
U. S. and Foreign Patents and Patents Pending

IT S-T-R-E-T-C-H-E-S STEEL

row at any interval running from 4 in. up to 20 in.

Every large beet sugar processing company in the U. S. has some of the machines for experimental purposes, and more than 1,000 are in use under such auspices, besides hundreds that have been sold to individual beet growers.

Record Milo Crop

Year's harvest may total 125,000,000 bu. Many farmers cut cotton acreage as yield from maize is alluring.

Spotted droughts throughout the Southwest have cut grain sorghum yields in some counties, but sufficient milo maize has already been harvested to assure a record-breaking crop of 110,000,000 bu. to 125,000,000 bu. depending upon the return from late crops which won't be harvested before October.

● **Crop Is Maturing**—In the big yield areas of Texas, producing an estimated 80,000,000 bu. in 1944, an increase of 15,000,000 bu. over 1943, some of the crop is in the granaries, most of it is now maturing on the stalk, and much of it is yet in the heading stage with yield to be determined by rains.

Labor shortage and high cost for farm labor have caused a decided swing from cotton to milo in Texas and in some of the old South—Georgia, Alabama, and Mississippi—where milo has been planted in large acreage for the first time. In Texas, which usually produced 4,000,000 bales a year before crop controls were invoked, cotton estimates for the 1944 crop are 2,450,000 bales, 373,000 bales less than the 1943 crop and 823,000 bales less than the average annual production in this state from 1933 to 1942.

● **Drop in Cotton**—Many farmers, both those planting all-cotton as well as diversified crops, have switched to milo and other grain sorghums, for the cash return per acre compares favorably with cotton. The OPA ceiling on milo is \$2.08 a cwt. and the crop is more certain than cotton and is harvested with much less labor. Most milo is now harvested with tractors and combines. Two men with a tractor, a combine, and a truck can harvest 25 acres (60 bu. to 100 bu. an acre) in twelve hours.

Merely cutting the heads from the stalks by hand was a 25-man job before the straight-necked dwarf-type milo was developed for combine harvesting (BW—Mar. 20 '43, p. 55).

Cottonseed oil mill operators are



BUSINESSMAN'S PRIMER on Plastics

Even those whose everyday work is with plastics recognize it as a complicated industry. This message is written to the businessman, his engineering and production aids, to whom the use of plastics is but one detail in a long list of production problems. It is a simplified explanation of why Durez phenolics are requisitioned for dozens of purposes by hundreds of leading manufacturers and successful merchandisers.

Versatility is the outstanding property of Durez. Check off a few of its characteristics. There's light weight, yet tensile strength is very good. There's impact strength which can take plenty of punishment. There's the fact that extreme temperatures affect neither inherent properties nor dimensional stability. There's powerful resistance to the corrosive attacks of chemicals,

oils, mild acids and alkalis. And, there's a series of electrical properties which make Durez a first choice for that industry.

There are Durez applications almost everywhere. A complete display of Durez molded parts and products would form an impressive exhibit of outstanding design and performance characteristics. In the factory, office and home, in transportation equipment of every kind, in radio sending and receiving equipment, in fact for thousands of items Durez is used to give extra advantages and greater utility.

The versatility of Durez is also marked in molding methods. Wartime molding developments give promise of widely extending the advantages of Durez to many new uses, in many new markets.

In the versatility of Durez may lie at least part of the answer to your production and merchandising problems. We suggest that now is the time to start talking it over with your custom molder. And we are always ready with valuable data and personal assistance in answering plastic materials questions. Write to Durez Plastics & Chemicals, Inc., 28 Walck Rd., North Tonawanda, New York.

DUREZ
PHENOLIC
MOLDING COMPOUNDS
AND RESINS

PLASTICS THAT FIT THE JOB



**"In 1 day, that
SIMONDS
man saved us
1 1/4 hours per cut
and gave us
50% more
blade-life!"**

That's the report of a war-plant which took advantage of a current Simonds offer to send an engineer to survey cutting operations.

Here, the operation was power-hacksawing... in which a blade-test resulted as follows: First blade cut 3" deep in 10 1/2" x 7 1/2" steel stock, taking 1 1/4 hours, when blade dulled. Then a Simonds Red End Molybdenum Blade—correctly tensioned to the job by Simonds new method—finished an entire 7 1/2" cut in 1 hour, 46 minutes. So why not have Simonds job-tensioned Red End Blades tried out on your own work by a Simonds engineer? Call your Supply Distributor, or write to:

SIMONDS
SAW AND STEEL CO.
FITCHBURG, MASS.

deploring the decline in cotton acreage and production since they see a shortage of cottonseed for vegetable edible oils (commercial baking shortening) and for cottonseed cake used for stock feed.

• **Milo to Help Out**—Offsetting the latter loss, the increased crop of milo will aid cattle and sheep men, poultry raisers, and other feeders who have previously used large quantities of corn. Milo has also been an important source of brewer's mix to replace hominy grits since corn has been scarce.

MEYER LEMON THRIVES

Considered particularly good for lemonade and pie due to its fine flavor, the Meyer lemon, discovered in Indo-China some 30 years ago and adopted by Texas growers, developed the handicap of staying green. Efforts to color it artificially were futile by reason of its perishability.

Ten years ago the growers of the lower Rio Grande Valley began building a local market in the state and this year are selling a record crop of between 3,000 tons and 4,000 tons. California regards the fruit as an interesting novelty—but it sells at higher prices in Texas.

Too Wet, Too Dry

Soybean yield reduced as much as 17,000,000 bu. by wet planting season and unfavorable summer weather.

Weather has conspired against the soybean this year. The spring was too wet for planting. The summer has been too dry for growth.

• **Dismal Prospect**—Result is that the government's crop report on Aug. 1 condition indicated a yield of 178,000,000 bu. (compared with 195,000,000 bu. in 1943), and drought undoubtedly has cut the prospect still further since the date of the federal forecast.

This versatile legume has more uses than a Boy Scout knife, but the top need is oil for oleomargarine for civilian, military, and lend-lease use. On the average, salad oils, margarine, and shortenings contain 36% soy oil. It comprises one-ninth of the edible fats and oils available.

• **Where It Goes**—Distribution of the oil processed from the 1943 crop is estimated by C. T. Prindeville, vice-president of Swift & Co., and former



BARGAIN IN EGGS

On the W. H. Mallory farm near East St. Louis, hogs give the War Food Administration a negligible lift in its campaign to dispose of an unprecedented egg surplus (BW—Jun. 10'44, p41). Since apparent collapse of WFA's program to divert its eggs to

livestock tankage (BW—Jun. 24'44, p52), midwestern farmers are getting eggs for hogs at only 5¢ a doz. These cost the government its support price of 27¢ a doz.—a total of \$55,000,000 to buy up 22% of the nation's production during the first half of 1944—to maintain price levels for producers and to relieve markets.



ARE YOU IN *This Spot* TODAY?

Busy as you may be, you're out on that old limb unless you are now making real progress in solving your post-war problems of reconversion. If these problems involve precision



*Awarded to two plants
McQuay-Norris Ord.
Management Division*

parts, McQuay-Norris can help you. For thirty-four

years, we've been making automotive and industrial precision parts... parts large and small... parts hardened and ground... parts of all types. Our clinical research, experience in metallurgy, design, machining, lapping, plating, grinding are available to you.

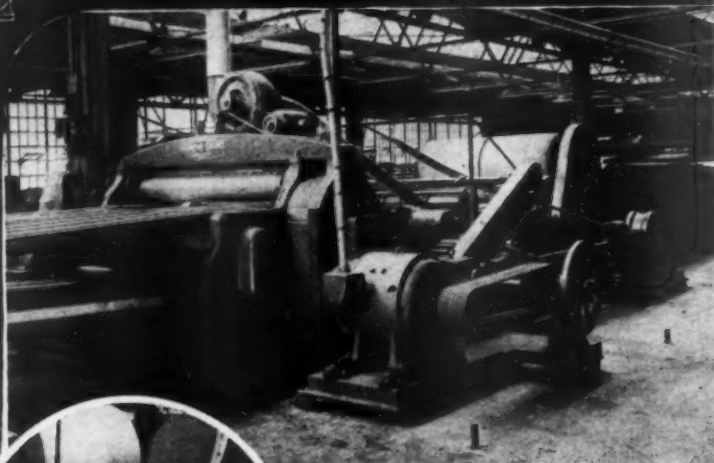


McQUAY-NORRIS

MANUFACTURING COMPANY

St. Louis, Mo. and Toronto, Ont.

PRECISION WORKERS IN IRON, STEEL, ALUMINUM, BRONZE, MAGNESIUM



This corrugated boxboard machine, operated by Reliance Motor-drive with voltage control, produces double-faced and double-wall corrugated board in a continuous operation direct from mill rolls of paper.

...does your work require **FREQUENT STARTING, STOPPING** and **SPEED CHANGES?**

Acceleration of this corrugated boxboard machine from zero to full speed is attained in less than 10 seconds through use of Reliance Motor-drive with voltage control. By comparison, at least two minutes were required with the types of mechanical controls formerly used. Saving in stopping time is even greater. Proper tension is maintained at all times and the speed of all sections synchronized to avoid breaks or damage to the material. Both quantity and quality of output are increased through the smoother, speedier response provided by this new method of control.

When there's a job of machine design to be done, or you are looking for ways to improve production methods, invite a Reliance man to sit in. His specialized knowledge of electric motor-drive can be a big help.

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Portland (Ore.) • St. Louis • Salt Lake City • San Francisco • Syracuse • Washington, D. C.
and other principal cities.

RELIANCE

MOTORS

chief of the Fats & Oils Branch, Food Distribution Administration, to be about as follows:

Oleomargarine	512
Shortening	372
Soap	8
Protective coatings	2
European relief	1
Crude oil for Canada	1

The remaining 300,000,000 lb. will be channeled into the most urgent industrial uses, and conserved to rebuild depleted reserves.

• **Leader in Ohio**—Last year's acreage was 10,820,000, or 15 times that of a decade ago when the soybean crop was an insignificant 13,500,000 bu. with a value of \$12,000,000, as compared with the \$350,000,000 value of the 1943 crop at the guaranteed price of \$1.80. (Bottom price of 47¢ was recorded in 1932.)

This production has lifted this crop to fourth place in the table of harvest value, but as a source of cash income to Ohio farmers, it led all others last year, bringing them \$31,278,000 to wheat's \$26,741,000. Producing states rank in this order: Illinois, Iowa, Ohio, Indiana.

• **A Dozen Varieties**—Studies have narrowed the seed stock to about a dozen varieties, with emphasis on oil content and early maturity. Later varieties contain more oil, but rains are likely to interfere with harvesting, causing waste.

A bushel of the beans, which look somewhat like peas, produces about a gallon of oil, weighing 7½ lb. and worth around 12¢ a pound. The remaining meal has a delivered price, based at Decatur, Ill., of about \$50 a ton.

• **Protein Feed**—About 90% of a production of 3,250,000 tons of soy meal will be used as protein feed for livestock and poultry. The rest will go into human foods ranging from noodles, grits, and cocktail crackers to "extenders" in sausage and flakes to aid protein and stabilize the foam of beer.

In its ordinary state, soy oil can be used only in the manufacture of soft soaps, but hydrogenated to a sufficiently high melting point, it is raw material for any soap. Capture of tropical areas by the Japanese sent soapmakers to other sources for about 20% of the traditional soap-making materials, palm oil, coconut oil, tallow, and the lower-priced harder fats.

• **Industrial Uses**—The high protein content of soybeans (40% to 50%) makes them advantageous in the manufacture of the alkyd resins for paints and varnishes, linoleum, oilcloth and coated fabrics, sulphonated oil for textile processes, rubber compounds, and for cutting, grinding, and turning.

One of the larger industrial uses has

been as core oil in casting foundries, but this is not permitted at present.

The list of uses is extended almost endlessly through the paper, glue, and plastics industries. The Ford Motor Co. developed an upholstery fabric from soy fiber, a line of development which has been taken over by the Drackett Co. of Cincinnati.

A milk from soybeans has a high nutritive value, and its lecithin has wide use in food and confections as an emulsifying and stabilizing agent.

More Broomcorn

But shortage of handles is likely to mean scarcity of brooms. Military purchases cut supplies for domestic use.

Broomcorn cutting is in full swing in Illinois, Kansas, Oklahoma, Texas, Colorado, and New Mexico, major producing states, and the harvest is expected to yield 63,300 tons, as compared with 52,500 tons in 1943 and an average annual yield of 39,700 tons for the period 1932-41.

• **Shortage Likely**—Nevertheless, there is a likelihood that American housewives will find brooms scarce in a few months, unless the broom handle shortage problem is solved soon. Broom manufacturers use 1,000 wooden handles for each ton of broomcorn, which would mean 63,300,000 brooms could be produced from the 1944 corn harvest—if handles were available.

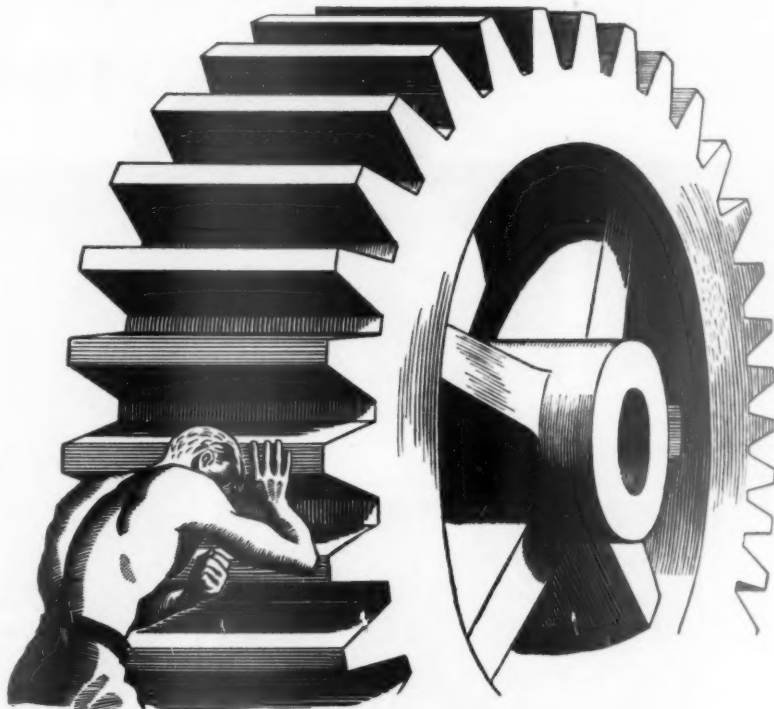
Peacetime normal production of handles is about 60,000,000, but a year ago output began dropping sharply. Handle manufacturers are governed by price ceilings ranging from \$40 to \$65 a thousand in carload lots, prices varying according to the species of wood—southern pine, western fir, basswood, poplar, beech, maple, oak, ash, or hickory.

• **Price Competition**—Latest outlook is that only about 35,000,000 handles will be produced this year. Reason is that lumber manufacturers, particularly in the Pacific Northwest fir region, are lured by the higher price ceilings on lumber, consequently are not diverting as much of the "square" edgings to handle factories.

Manufacturers that have their own woods operations are handicapped by the general manpower shortage.

• **Government Buying**—Military services have entered into the market as heavy buyers of brooms. Government requirements are taking 10,000,000 handles between now and Dec. 31, and recently the Navy came into the market for 2,080,000 additional brooms.

THE SINEWS OF WAR THE OPPORTUNITIES OF PEACE



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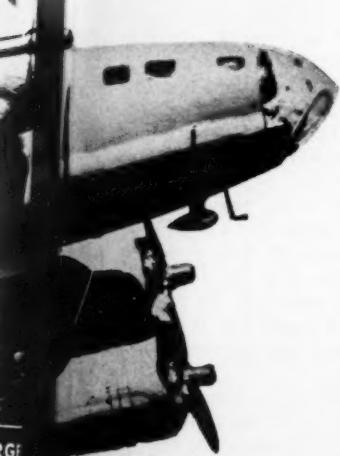
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VICTORY NEWS

How to Train Women Workers!

In conjunction with the U. S. Air Forces, Allis-Chalmers has produced an educational movie, "Woman Power," showing how women with no previous training or experience, were taught to perform all of the intricate jobs at Allis-Chalmers' new supercharger plant.

The movie shows how to train women war workers, how to provide for their comfort, health and happiness in a factory job. It will be loaned to management and supervisory groups faced with the necessity of adapting woman power to manpower shortages. Write or wire Allis-Chalmers, Milwaukee, Wis.

More Help For "Sink-Float" Plants:

To facilitate wet screening and dewatering, Allis-Chalmers has designed a new End-Tension Deck for Low-Head Vibrating Screens.



New deck construction assures uniform depth of product and maximum use of screen surface for more efficient operation. Write for Bulletin B-6321.

Electronic Giant By A-C: Big factor in breaking the aluminum bottleneck after Pearl Harbor was the Mercury Arc Rectifier—the world's biggest electronic device—introduced to America in practical form by Allis-Chalmers.

In one simple operation, the A-C Mercury Arc Rectifier converts alternating to direct current, the electric power needed for mass processing of aluminum, other vital war metals. Helps keep U. S. plane production on schedule!

FOR VICTORY

Buy United States War Bonds

Largest Line of Major Industrial Equipment

CHALMERS

Options Picking Up

Puts and calls are gaining favor as investors endeavor to avoid losses and to escape high taxes on quick market profits.

Stock-option contracts, commonly known as "puts" and "calls" and for years an important adjunct to stock market trading in Europe, are coming into their own in this country. More and more investors are turning to these contracts, for numerous reasons, including limiting possible trading losses, insuring collection of paper profits, or escaping higher taxation on quick profits.

• **Started in London**—Use of puts and calls in security trading abroad can be traced back to 1694, or 80-odd years before a leading group of London stockbrokers, tired of wandering all over the city to transact business, finally got together at Jonathan's coffee house and organized the London Stock Exchange, the world's first modern-type stock-and-bond trading mart.

The use of puts and calls in the United States never became as widespread or as integral a part of stock trading technique as in Europe. This is partly because of the early oversteering of their speculative or plain gambling potentialities, rather than the "insurance" function for which they were originally designed abroad. For many years their use by clients was frowned upon by many conservative financial interests.

• **Educational Drive**—Nevertheless, in recent years responsible dealers have required that put-and-call contracts they handle as brokers (generally supplied by holders of large blocks of stock) be guaranteed by New York Stock Exchange members. The Put & Call Brokers & Dealers Assn., Inc., has been endeavoring to educate the public in the proper use of stock-options.

There are many legitimate uses for puts and calls, but there has been a widespread belief that these contracts were too complex for the average investor and that their use should be left to the experienced Wall Streeter.

• **What They Are**—Actually, there is nothing mysterious or complex about puts and calls. They are merely agreements, negotiable in form, in which the writer of the contract, for a sum of money paid in advance, cedes to the buyer the right to demand within a

specified time the completion of a purchase or sales contract.

In the case of a call, the contract gives the holder the right to buy, if he wishes to take advantage of his option, certain stock at a fixed price before a specified date. A put, on the other hand, confers on its holder the right to sell specified stock under the same conditions.

• **Others More Complicated**—Two varieties of puts and calls are the "spraddle" and the "spread." They give holders the right either to sell or to buy the stock involved but are more expensive to pur-

chase than plain puts and calls and are more suited for use by experienced traders.

All stock-option contracts cover 100-share lots and are generally written for 30, 60, or 90 days. The 30-day options cost \$137.50, out of which the seller pays the put-and-call dealer a \$12.50 commission, but there is no set price for the longer options. Purchasers of more than 30-day contracts are paying fees ranging from \$150 to \$312.50.

• **Depends on the Market**—There are times when puts and calls are very scarce, and this factor is one of their disadvantages. Calls, for example, may be difficult to obtain because of the large demand and the limited supply available, when the market is moving higher rapidly, while in rapidly declin-

How "Puts" and "Calls" Work

This is the way "puts" and "calls" (stock-option contracts) operate.

Take the case of a conservative investor who occasionally likes to trade in the market. He has come to the conclusion, for various reasons, that a certain common stock at \$50 a share has definite appreciation possibilities, and he picks up 100 shares.

• **Wants Protection**—He thinks that his appraisal of the stock's future market action is a correct one. But he's not entirely sure, and he would like to protect for a time his \$5,000 investment. Therefore, he wastes no time in also buying a put contract for \$200 which guarantees him a selling price of \$47 for his stock, or \$3 under its cost, for the next 60 days.

This "insurance" has raised the cost of the investment to \$5,200 but he has assured himself a price for his stock of at least \$4,700 for 60 days.

It may subsequently turn out that this investor made a blunder in buying the stock when he did for within 60 days it has dropped to the \$42-level. However, he doesn't have to accept this price for his holdings. Instead, he exercises his option to sell his stock at \$47 and cuts the \$800 loss he would have otherwise faced down to \$500.

• **Lets Option Lapse**—But suppose he had been a good picker and the end of 60 days saw his common selling at \$60 a share. In that event, he would merely let his selling option lapse, collect his profits of \$10 a share by selling his stock in the market, and then see his gains reduced only \$2 a share as a result of his earlier purchase of "insurance"

to take care of a possible loss.


Assume, however, that at the start he wasn't quite sure that the present was a good time to buy his chosen common even though at \$50 it appeared a good buy. Perhaps he knows of a possible development ahead that might give him the chance to pick up his shares later at a much lower price. But he's still not certain this will happen or that some good news won't send it to higher rather than lower levels. But he is sure that he would like to buy 100 shares at a price of around \$50.

• **Provides Leeway**—A call contract in that case would provide the answer to his problem.

For \$137.50 he could buy a 30-day option on the stock at \$53. Then if at the end of that period it is selling above \$53 he can exercise the call he owns on the shares; or he can let it lapse, if it is below the \$53 level, and buy the stock cheaper elsewhere.

To provide another example of the operation of puts and calls, consider the dilemma of an investor with large paper profits on stock held for only three or four months. The stock is as high as he thinks it can go; yet if he sells now the profit will represent a "short-term" capital gain and taxes on it will be high.

• **Savings on Taxes**—Here a put would have value, both as a tax-saving device and as a clincher of paper profits. Such a contract, for the 60 or 90 days necessary to change the profit into a "long-term" lower-taxed capital gain, probably could be purchased at a price much less than the resultant savings.



This barbed wire must come down, fast...

IF EMPLOYMENT AND PROFITS ARE TO BE MAINTAINED

PEOPLE are going to want plenty of things. That's what business is counting on to keep America's productive plants busy, to make millions of jobs in peacetime.

But management isn't making the mistake of confusing *wanting-power* and *buying-power*.

It knows that when wartime savings are spent, there will be serious barriers between what people *want* to buy and what they'll have the money to *buy*.

Higher taxes, higher wages, higher material costs will just have to be hurdled. But there's one formidable obstacle against which business can send out its demolition squads.

That obstacle is the sum total of non-productive costs loaded into the price of goods by inefficient control and accounting methods. It's the dragging, wasteful paper work in offices and plants which adds to cost without adding to *value*.

WORK SIMPLIFICATION STUDIES HAVE SHOWN THE WAY

Many companies are just beginning to discover the staggering size to which these non-productive costs have grown. And many have already learned that these costs can be cut just as *direct* manufacturing costs were cut through modern production line methods.

Work Simplification studies by Stand-

ard's Field Representatives (and their staffs of analysts, form design engineers and business machine specialists) have provided the clue for broad-scale non-productive cost reduction. For example, a large steel company found that Standard's *Formcraft Engineering* approach to one Receiving and Forwarding system eliminated 66.6% of previous paper-work operations.

Add up such potential savings in offices and plants throughout America . . . and thousands of products will be within reach of millions of more pocketbooks after the war. Is there any surer—or easier—way to make more postwar sales, more postwar profits, more postwar jobs?

Standard's control systems are now being produced for customers in war industry and government. But preparatory studies in your business NOW may help you plan ahead for greater cost-saving efficiency. Would you like to see some actual case studies? Write for a sample Formcraft Digest and check list.

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ing markets puts are often hard to find. The range between the market price and the option price of the stock covered when the contract is written also varies depending upon market conditions.

Recently, however, 30-day calls on U. S. Steel common, for example, were available at \$3 above their price on the Big Board and puts \$3 under, on Chrysler at \$3.50 and \$3, respectively, while Anaconda options were obtainable at a differential of 25¢, either way.

• **Not a Short Cut**—Stock-options can be used as a means for highly speculative operations. Nevertheless, the writers of such options watch their own interests carefully, and many speculators have found to their sorrow that puts and calls offer no quick short cut to wealth.

It would seem, perhaps, that the seller of puts and calls bears all the risks and benefits only to the extent of the premium he receives. However, that couldn't be the case since the put and call market would have long since ceased to exist.

• **There Is Some Velvet**—The takers of option-money, the dealers say, are usually persons of means with substantial blocks of stocks who are willing to sell portions at a price above the market prevailing when the contract is written

or increase holdings at under-market levels.

Also, the premiums they receive improve their per-share price in the case of any stock received or delivered as a result of the exercise of options and, of course, they are in the velvet when options are allowed to lapse.

DRUG UNITS MERGED

American Home Products Corp., one of the nation's leading business expansionists in recent years (BW—Apr. 15 '44, p. 80), has just completed another important step in its plans for integrating operations of its many subsidiary units by merging five of its largest proprietary drug subsidiaries into a single operating company, the Whitehall Chemical Co.

The companies involved in the consolidation—Anacin Co., BiSoDol Co., Larned Corp., Anacin Mfg. Co., and Kolynos Co.—reported domestic sales in excess of \$17,000,000 last year.

All management functions will be consolidated to eliminate any duplication in their manufacturing, selling, advertising, and office facilities. The parent expects a beneficial pooling of new processes and production know-how, laboratories, and warehouses.



BANKERS BOOST 4-H

George J. Sluyter, chairman of the New York State Bankers Assn.'s agriculture committee, presents the group's first 1944 award for 4-H Club members to Leander Glover, Jr., of Suffolk County. The award, witnessed by Prof. Albert Hofer, state 4-H leader, marks the first presentation of

the association's new green and white felt insignia (insert) which replaces for the duration the usual gold, silver, and bronze pins. Glover's badge is one of 55,000 being awarded this year in New York state by the bankers' organization. That's a 100% increase over 1940 and a rise of 5,000 since last year—due partially to useful wartime interest in Victory gardens.

WHAT WILL I SEE ON MY TELEVISION SCREEN?



*I am Alec Electron, here again to
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1. Will I see important news events while they are happening?

Yes, *immediately* in the city in which the news event transpires. And distant events — when cable or radio relay networks link up our large cities. Until such time, motion picture newsreels will be rushed to your local Television station by swift planes and will be shown at once or held for regular newscast periods.

2. Will I see famous stars of stage, screen and radio?

Yes. In the past 3 years, hundreds of the great names of the entertainment world have been tested for Television. Every week brings new faces to DuMont's Station WABD, anxious to explore the thrilling possibilities of this great new medium.

3. Will I get "local news pictures" on my Television Set?

Yes, indeed, DuMont has designed "pickup trucks" for fast eye-and-ear coverage of everything that goes on in your community. As portable video cameras scan the parade passing 5th and Main, it will appear on your DuMont home receiver. You'll watch for your friends in style shows and amateur productions, graduations, street interviews, quizzes and other contests, inspections of crops, gardens, and new construction. You'll visit dedications, patriotic and political rallies, county fairs, fires. You'll take wonderful shopping tours — without leaving your favorite armchair.

4. Will I get big sporting events free?

Yes, national advertisers are already seeking options for telecasting the World Series, Madison Square Garden attractions, the races, football classics, etc. Because several Television cameras will be employed, you'll enjoy several "best seats" at each event.

5. What educational programs will Television offer?

Television will make education as exciting as a mystery adventure. Well-known scientists and engineers will take us on tours of great industries, mines and utilities, will entertain us in their laboratories. We shall enjoy conducted tours of art galleries, planetariums, museums, zoos, aquariums, historic sites and national parks. We shall sit in Congress, political conventions, town hall meetings and courts. We'll visit automobile and aviation shows, hospital clinics, kitchens of famous chefs, Army and Navy maneuvers, model farms and lecture halls.

6. Will I have to look at a parade of advertised products?

Television's commercial sponsors will mix a lot of entertainment with very little sales talk. For some time over Station WABD, DuMont has cooperated with national advertisers in developing techniques for putting product demonstrations and advertising messages high among the truly entertaining features of Television. They have many surprises in store for you — very pleasant ones.

7. Will I receive pictures in full color?

Don't expect them soon. Engineers in many laboratories — including DuMont's — are giving their days to war work and their spare time to the development of natural color telecasting. Truthfully, color transmission is still in the laboratory stage. It has too much flicker. It stands today where black-and-white telecasting stood when mechanical scanning was abandoned for the infinitely more rapid and reliable electronic scanning. Commercially practical color telecasting will probably be achieved by methods undreamed today... but how or when is anybody's guess.

8. Will I get standard radio programs on my Television Set?

Not unless you own a *combination* Television-Radio Receiver. A separate unit is required. Several new-model DuMont Television-Radio Receivers will provide Television, standard AM and FM (Frequency-Modulation) reception and an excellent phonograph record player. DuMont's impressive pioneering achievement in Television assures you of the very finest in electronic engineering and cabinet artistry... of unique performance in your peacetime Television Set.

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Streetcar Snarl

Federal judge will rule Sept. 18 on move to reorganize Chicago traction lines privately or as city-owned system.

After years of fumbling to unravel the financial snarl in which its conglomeration of streetcar, elevated, and bus lines has been tangled since almost as far back as the memory of the oldest living inhabitant, Chicago hopes—none too confidently—for decisive action Sept. 18.

• **Two Proposals**—Federal Judge Michael L. Igoe then expects to give a decision that may throw into bankruptcy the Chicago Surface Lines—the nation's largest streetcar system—in an effort to expedite reorganization privately or through municipal ownership.

Serving as a forum for presentation of traction ideas, the Chicago federal district courtroom has for 17 years echoed with possible solutions. At a hearing attended by 100 lawyers and financial men, Judge Igoe last week heard arguments on two proposals.

• **Bankruptcy or Sale**—A group of security holders petitioned that the Chicago Surface Lines be taken out of its 17-year-old equity receivership and be declared in bankruptcy under federal laws. The City of Chicago offered to purchase the surface system and the elevated lines of the Chicago Rapid Transit Co. (now in bankruptcy) and merge them.

Judge Igoe, withholding his decision until next month, implied that he favors shifting the legal status of the surface lines from their present intermediate stage all the way over into bankruptcy. Indicated purpose of this proposed move is to give the court more power in disposing of the property. Putting the lines into bankruptcy, he indicated, also would provide a method to determine whether the city's offer of \$84,650,000 for the traction lines is a fair price.

• **Early Maneuvers**—To understand Chicago's traction puzzle requires some background.

On Feb. 1, 1927, the surface lines' entire bonded debt of about \$151,000,000 came due. On the same day, its 20-year franchise expired.

The franchise lapsed when municipally sponsored efforts to merge the surface and elevated lines came to naught. Bondholders of the streetcar company saw no benefits in a marriage to the chronic deficit of the elevated company.

• **El Goes Broke**—Lacking a franchise and unable to pay its bonded debt, the

surface lines went into receivership in 1927.

Since that time, the railroad company, operating under temporary extensions of the franchise and under the guidance of the U. S. District Court, has paid 3% interest regularly to the first mortgage bondholders, and has reduced the amount of these bonds \$23,000,000 to \$72,000,000. Junior bondholders, who own \$56,000,000 of other surface lines securities, including \$20,000,000 collateral bonds of the Chicago city and connecting railroads, have had nothing.

The depression years broke the elevated company, which defaulted on interest payments. In 1932 it went into equity receivership, and later into bankruptcy. No interest has been paid bondholders since its affairs were taken to court.

• **Bankruptcy Opposed**—City Officials oppose bankruptcy as too drastic and slow for reorganizing the surface lines. As an alternative, they submitted this month a second proposal for municipal ownership and operation of the streetcars and elevated lines. Under their plan, \$75,000,000 is offered for the surface lines (\$51,000,000 for physical properties and \$24,000,000 for release of renewal reserves). Surface Lines' assets not purchased by the city would be liquidated, it was estimated, for \$10,500,000. The total to be distributed to security holders would thus be \$85,500,000.

• **Financing Plan**—Of this sum, senior bondholders would reap \$69,000,000, while the take of junior security holders would be \$16,500,000, less than a 33½% return. Judge Igoe frowned on the city's first offer, providing full payment to senior bondholders, and leaving only crumbs for the junior bondholders.

For the elevated lines, the city's present offer is \$9,650,000 in cash. Other assets to be liquidated should bring an additional \$4,850,000. This \$14,500,000 total distributable to elevated line bondholders is less than a one-third return.

• **Four Hurdles**—To finance the deal, the city proposes to sell \$84,650,000 of 3½% revenue certificates. The plan provides for later inclusion of the reluctant—because financially solid and always money-making—Chicago Motor Coach Co. in the unified, city-owned system. Also provided is a \$100,000,000, ten-year modernization program.

The city's proposal, if it gains court approval, thereafter must run the gauntlet of: (1) acceptance by the bondholders; (2) approval by Chicago voters; (3) approval by the state supreme court; and (4) sale of the municipal certificates.

A third course is open to Judge Igoe, who could order that, under provisions

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RADIAL PRESSURE of piston rings must be *correct* and *uniform* to prevent excessive wear of cylinder walls. Because of their exclusive Heat-Shaping process, Pedrick *precisioneered* piston rings bear evenly against the cylinder wall, with just the right amount of pressure all the way around their circumference. This process relaxes all the grains of the metal, removes the stresses of machining, and "fixes" the rings to exactly the correct shape and tension.

Thus, Pedrick rings have no high-pressure points to break through the oil film and cause excessive wear and scuffing. They have no low-pressure areas, either, which would permit oil to pass or combustion gases to blow by. The superior performance of Pedrick rings lengthens precious cylinder-block life, saves critical gas and oil, reduces tie-up time, and conserves the time of scarce mechanics.

Pedrick *precisioneered* piston rings, in sizes up to 36" in diameter, assure many hundreds of extra hours of service for engines, compressors, pumps, hydraulic equipment. Packaged complete in Engineered Sets for all popular automotive vehicles, and made to blueprint specifications for innumerable special applications. Tell us your particular needs. **WILKENING MANUFACTURING CO.**, Philadelphia 42, Pa. *In Canada:* Wilkening Manufacturing Co. (Canada) Ltd., Toronto.

Pedrick
precisioneered **PISTON RINGS**

of a 1941 Chicago ordinance, another privately financed unification plan submitted to the Illinois Commerce Commission. More than a year ago the commission rejected as financially unsound a merger proposal that provided for issuance of \$179,000,000 securities.

New Issues

While investors have put up some price resistance, the market now seems to be moving into a period of wide activity.

Following the close of the Fifth War Loan drive in mid-July, predictions were freely made in some Wall Street quarters that subsequent public offerings of new corporate issues might hit the \$1,000,000,000-level before the time for the next government loan rolled around (BW—Jul. 29 '44, p. 70).

• **Price Resistance**—The volume needed to reach such a total hasn't been forthcoming yet. Moreover, the investing public showed some price resistance to one of the few large issues that has reached the market this summer.

This occurred in the case of the offering of \$24,000,000 Cincinnati Terminal 30-year 2½% bonds, an issue purchased at the high price of 101.08% of par in competitive bidding and publicly reoffered by the winning syndicate at 101.85% of par on Aug. 9.

• **Balked at Yield**—While this issue is high in investment quality, its price of \$1,018.50 per \$1,000 bond offers purchasers a yield to maturity of but 2.66%. Since U. S. Treasury 2½% bonds of slightly shorter maturities are available at levels yielding 2.46% to 2.48%, or but slightly less, many potential buyers promptly balked. When the underwriters removed price restrictions on the issue late last week, the highest open market bid offered was, for a time, only 100.75% of par.

Wall Street hears reports that the Prudential Life Insurance Co. was able to pick up \$5,000,000 of the bonds and the Union Trust Co. of Pittsburgh another \$1,000,000 at 100.50% and figures that absorption of such a large amount of the offering helped, as later on bids for the issue rose to 101%.

This isn't the first time that investors have balked at issues they considered too rich (BW—Jul. 1 '44, p. 68), and the Street thinks that due note will be taken by some of those syndicates that have recently been figuring their bids with very sharp pencils.

• **Now Opening Up**—However, despite such setbacks, the new issues market is

It hasn't come to this yet, but . . .



1.



2.



3.



4.

No, it hasn't quite come to this at the Hotel Pennsylvania.

But a nation at war is a nation on the move. And frequently, more travelers want to move into the Statler-operated Hotel Pennsylvania in New York than the hotel can accommodate at one time!

That's flattering. And embarrassing.

We don't like to deny *anybody* one of our famously comfortable Hotel Pennsylvania beds. But with just so many rooms, and so many more patrons, it's only fair to give preference to travelers who have made advance reservations.

Chances are that we can take care of you if, before you head for New York, you'll remember and observe these "3 Golden Rules for Travelers":



Make reservations well in advance, specifying hour of arrival and date of departure.

Cancel unwanted rooms promptly.

Release your room as early as possible on day of departure.

And what of Hotel Pennsylvania food and service during wartime? Well, even though we're rationed like any housewife, we get as many compliments as ever on our delicious meals. All our other employees are working like beavers, too . . . and a mighty fine job they're doing, in spite of wartime handicaps.

YOUR DOLLARS ARE URGENTLY

NEEDED FOR U. S. WAR BONDS



Wire...

TO SAVE A LIFE

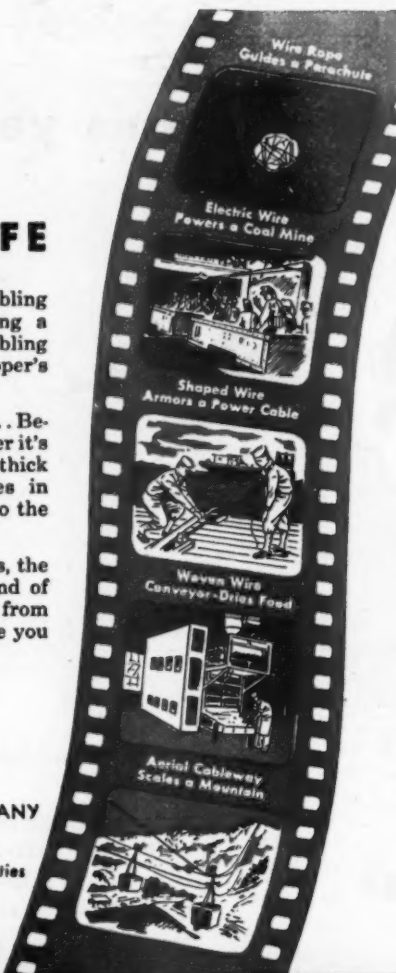
IT IS A FAR CRY—from the tiny Roebling Woven Wire filtering and guarding a super-bomber's fuel—to the Roebling Wire Rope that pilots a paratrooper's training jump...

But, there's one thing in common... Because in the making of wire—whether it's hair-thin or laid into a wire rope as thick as your arm—Roebling specializes in *quality*—from the rolling of metal to the final fabrication.

Roebling has the men, the machines, the "know-how" that add up to the kind of wire products that can only result from *wire specialization*—the kind of wire you want when you say...

**It's a Job
for the Pacemaker!**

JOHN A. ROEBLING'S SONS COMPANY
TRENTON 2, NEW JERSEY
Branches and Warehouses in Principal Cities



Roebling Filter Cloth screens and purifies fuel for fighting jeeps... blood plasma for fighting men. Another product of Roebling's five wire specialist divisions.



ROEBLING

PACEMAKER IN WIRE PRODUCTS

WIRE ROPE AND STRAND • FITTINGS • AERIAL WIRE ROPE SYSTEMS • COLD ROLLED STRIP • HIGH AND LOW CARBON ACID AND BASIC OPEN HEARTH STEELS • ROUND AND SHAPED WIRE • ELECTRICAL WIRES AND CABLES • WIRE CLOTH AND NETTING AIRCORD, SWAGED TERMINALS AND ASSEMBLIES • SUSPENSION BRIDGES AND CABLES

finally showing some of the predicted signs of widespread activity and may be now beginning to think that the next twelve weeks may prove to be the busiest underwriting period since Pearl Harbor.

Virtually all the financing now indicated is for refunding purposes. Issues already registered with the Securities Exchange Commission, awaiting approval of the Interstate Commerce Commission, or otherwise pretty well set for early public offering, include:

\$65,000,000 Armour & Co. mortgage bonds and \$10,000,000 serial notes (BW-Oct.9'43,p102).

\$10,000,000 Birmingham Electric mortgage bonds.

\$42,000,000 Brooklyn Union Gas mortgage bonds and debentures (BW-Aug.12'44,p68).

\$6,000,000 E. G. Budd Mfg. Co. prior preferred stock.

\$44,000,000 Chicago Union Station mortgage bonds.

\$10,000,000 Empire District Electric mortgage bonds and \$3,500,000 of preferred stock.

\$12,000,000 Indiana & Michigan Electric preferred stock.

\$47,000,000 Kansas City Terminal mortgage bonds.

\$24,603,000 Western Union Telegraph bonds.

• Expected Later—Additional offering expected by Wall Street before many weeks are past include:

\$50,000,000 Central New York Power mortgage bonds.

\$178,000,000 Commonwealth Edison mortgage bonds (BW-Aug.12'44,p68).

\$4,000,000 Florida Power preferred stock.

\$100,000,000 Great Northern Ry. bonds (BW-Jul.29'44,p70).

\$14,000,000 Mississippi Power & Light mortgage bonds and notes.

\$31,500,000 Narragansett Electric mortgage bonds.

\$24,000,000 New York Power & Light preferred stock.

\$30,960,000 Ohio Edison bonds and \$18,000,000 of preferred stock.

\$130,000,000 Philadelphia Electric bonds.

\$7,500,000 Pillsbury Flour Mills preferred stock.

CHECKS AND CHECKS

Checks, Incorporated, of Minneapolis, which has inaugurated a copyrighted postcard check service for money order purposes (BW-Aug.5'44,p56), has no connection with Checks, Incorporated, of New York, which for 14 years has been selling a patented system of handling checks on typewriters for payroll and other purposes.

PRODUCTION

G.I. Bulldozer

World gets demonstration of U. S. earthmoving equipment in action. Results may sew up peacetime markets.

Bulldozers clear the beaches, build the air bases, and break paths for the Army ground forces. In mechanized warfare, power-driven earthmoving equipment has won a place in the sun.

Air power is a mobile weapon, but only as mobile as the speed with which airfields can be built. Thus even air power depends on earthmoving power, *Engineering News-Record*, a McGraw-Hill publication explains, and Americans "are the world's greatest earth movers."

● **Restrictions Eased**—Therefore because it indicates that the services have passed the peak of demand, it is good news for the Allies, as well as good news for construction men who want to get back to work on civilian jobs, that WPB has eased some of its restrictions, effective this month, limiting production of lighter type bulldozers, and 25 other kinds of construction equipment. At the same time WPB eliminated all limitations on the distribution of repair parts for these 26 items.

● **Priorities Remain**—A buyer continues to need a priority of AA-5 or better to get a bulldozer, but he might conclude that the builders of earthmoving and related construction equipment perhaps will be able to supply some of their regular civilian customers within the next few months.

● **Brisk Competition**—About 73% of total current production, WPB estimates, goes to the military services, 5% into export (lend-lease), and 22% into civilian uses considered important enough to rate the necessary priorities. Volume reported in 1937 (peak prewar year) was \$247,000,000. Last year it was \$721,000,000; this year production continues at about that level.

Building of construction equipment is highly competitive. No one producer accounts for much more than 5% of the total volume, and WPB reports 300 manufacturers in the field.

● **Worldwide Demonstration**—In one sense the war has welded together the sales promotion activities of these 300 manufacturers into a worldwide cooperative demonstration of what American earthmoving machinery can do. Army,

Navy, and lend-lease have placed demonstrating models in action on every continent and on obscure islands in the Pacific.

Not all these hard-working demonstrators will come back. Those that survive the brutal demands of their war jobs, or many of them, may be needed abroad for reconstruction, and their use may promote new and renewal orders, and a demand for repair parts.

● **Led Offensive**—This world demonstration has been well publicized. For example, the *United Press*, reporting the first American break-through near St. Lo in the present European offensive, carried a story which began with these words:

"First came giant American bulldozers, smashing holes in the hedgerows and battering the German road blocks to rubble, and then came a long, waddling line of tanks on which infantrymen were crouched like cowboys."

In action on the Pacific Islands other "giant American bulldozers" push over Japanese pillboxes, plug the entrances to caves filled with enemy troops, and destroy cannon and machine guns.

● **The Dozer Family**—To the construction man, the word "bulldozer" means the steel scraper attached to the front end of a crawler-type tractor. In popular usage, this meaning has been enlarged to include both scraper and tractor, as a unit.

There are many variations, such as beach dozer, angle dozer, tree dozer, dozer shovel, and overhead shovel, de-

scribing different kinds of moving or carrying equipment. Bulldozer blades have been mounted on tanks (page 74); regular crawler tractors mounting bulldozers have been armored for service in combat areas.

● **Chief War Job**—The main war theater job, if not the most spectacular one, for American construction equipment has been to build landing fields, and make possible effective air support of ground forces.

Besides speedy construction of runways and taxiways, Army aviation engineers are equipped to provide water supply, sewage disposal, power, and communication facilities, housing, roads, pipelines, aviation gasoline fueling systems, and sometimes wharves and docks.

Navy's users of construction equipment are the Seabees. Their jobs are likely to begin with a question relating to some island far out in the Pacific, "How soon can you build an airstrip there on which we can land bombers?" As with the Army, the bulldozers come first when the Seabees move in.

● **Few Design Changes**—Most manufacturers of earthmoving equipment say that their products today are about the same as they were three or four years ago, with practically no revolutionary design changes, although there have been some special designs to fit requirements of air transport, and improvements in line with long-term trends toward higher-speed, pneumatic-tired equipment.

● **Postwar Competition**—In view of what's being done by the Americans with American earthmoving equipment, some builders anticipate a postwar market of world proportions. The Ameri-



By cleaning up the rubble, a standard-type American bulldozer quickly transforms the battered French town of Douet into a military asset for the Allies.



An ingenious military bulldozer is the American M-4 tank which mounts a scraper blade which worked under fire among the hedgerows of Normandy.

cans may not have this market to themselves, but they now appear to hold a substantial lead over all possible competitors, and they have every intention of keeping it.

In the bulldozer and related equipment field, one bone of contention is the relative merits of hydraulic and cable controls. Field reports indicate that repair crews have a preference for cable controls. Hydraulic control bulldozers claim hydraulic action is smoother and safer.

• **Lines to Expand**—Despite the wartime pooling of demonstrations through Army and Navy, indications are that end of the war will signal more intensive, rather than less, competition among the manufacturers.

Specialization has, up to now, been the accepted thing. Tractor builders haven't generally invaded the equipment field, and vice versa. Recently Caterpillar Tractor Co. departed from this tradition by disclosing that it will begin to make its own line of bulldozers, scrapers, rippers, and cable control units, as soon as military requirements permit.

LATEX FOR TIRES

Tires manufactured out of liquid rubber, or latex, instead of the traditional gum stock are the goals of a current research project at the Firestone Tire & Rubber Co., Akron.

Researchers believe they can spread compounded latex, natural or synthetic, directly on cord fabric for tire bodies, thus eliminating the slow and expensive jobs of milling solidified rubber and calendering it into the fabric with huge

rollers. Tire treads are made separately by similar methods and added to the bodies during final stages of manufacture.

In revealing the development, Firestone cautions that tires made by the new method do not yet compare in mileage with those made by conventional methods, but believes that results are encouraging enough to justify further research.

FREON FOR THEATERS

Good news for theater owners whose business has been hurt by recent hot weather and lack of sufficient air-conditioning refrigerant appeared last week in published reports that WPB was easing up on its controls on Freon, the refrigerant gas. Actually WPB is making only a small amount of Freon available to theaters where lack of this refrigerant has caused acute hardship.

Franklyn B. Millham of WPB's General Industrial Equipment Division said from WPB's point of view the publicity was premature, because it might give the impression that Freon is no longer in tight supply. There has been a slight increase in production from the mid-year figure of 3,200,000 lb. a month (BW—May 27 '44, p63), but the supply continues to fall far short of demand.

WPB has been granting hotels enough Freon to supply cooling systems for inside dining rooms, but none for bedrooms. From questionnaires it has sent to theater owners, WPB also expects to work out some criteria for granting Freon to operators whose business would be seriously hurt without it.

Wired Tires Tried

Experiments with metal substitute for fabric cord show promise in limited fields, but not for passenger car rubber.

Research on the use of wire cord to replace textiles in automotive tires is being conducted by several rubber companies with a degree of success which prompts technicians to forecast some postwar development of that construction, although high comparative costs seem likely to prevent any widespread use.

• **Bond Improved**—The principle is not new, having been pioneered in France by Michelin tire engineers more than a decade ago. A few of these tires were sold in the United States, but they were never widely adopted. Recent improvement in rubber-to-metal adhesives, however, has given the method fresh impetus.

Wartime rubber problems spurred intensive experiments with wire-cord tires in the hope that they might produce a lighter tire with greater bursting strength and effect a saving in rubber and tire-building equipment.

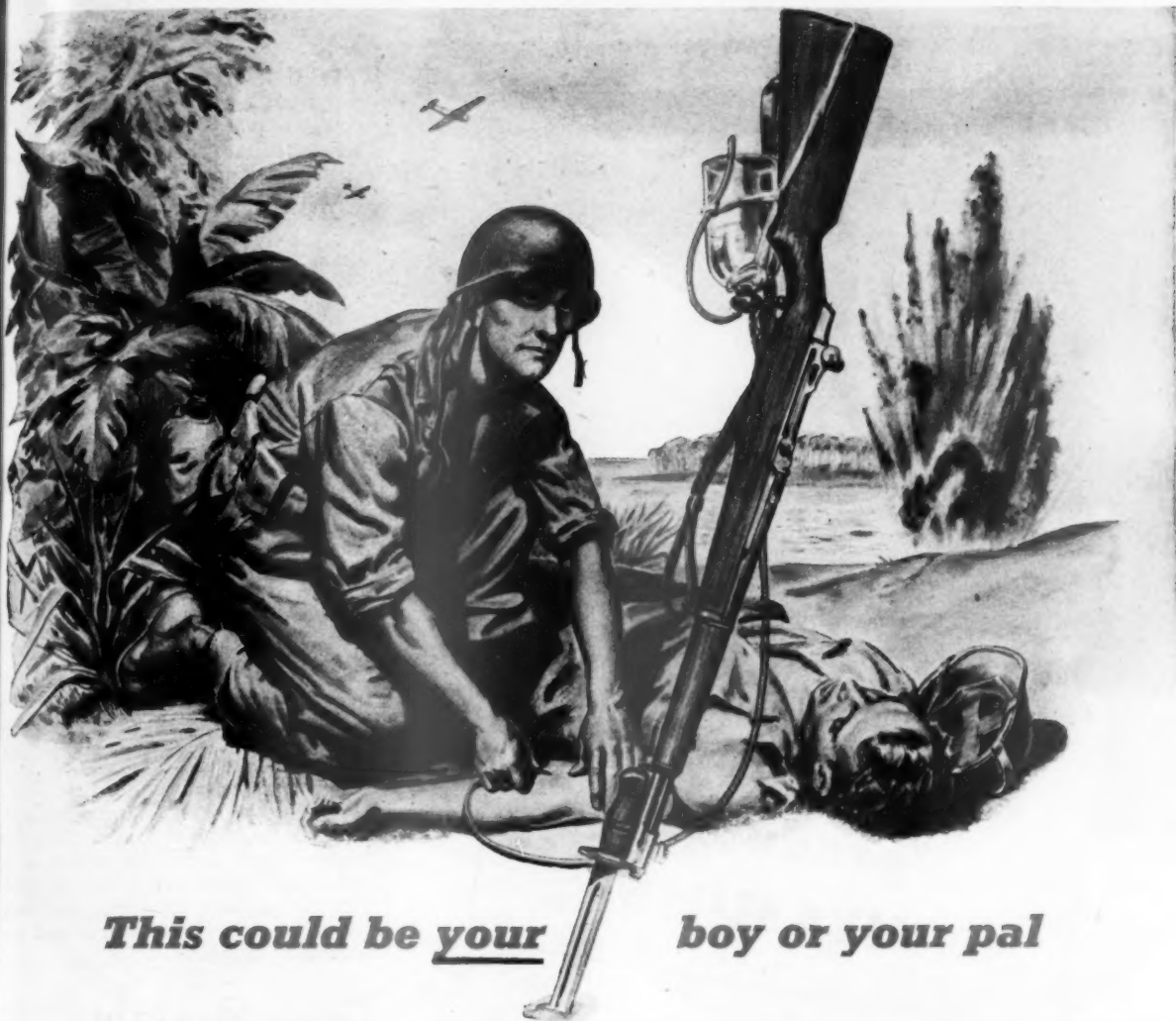
• **For Limited Fields**—Conclusions from fabrication and testing experience are still shrouded in censorship, but it is apparent that not all of the hoped-for results were obtained. Results were impressive enough, however, to cause designers to predict future application in limited fields.

Vehicles such as those used in logging operations, where tires encounter high pressures and low speeds, are considered a typical possibility for wire-cord tires. Indications are that such uses would call for but a small fraction of the country's tire output.

• **Impracticable for Cars**—For ordinary passenger and commercial car use, the wire tire cost is so high, as compared with textiles, that three or four times longer service would be required to make them economically practicable. Wire has produced no such promise.

• **Procedures Vary**—All of the major Akron companies have built tires with metal. Details of construction vary, but in general the tire people have employed steel wire of about 0.006 in. in diameter, twisted into a 3x7-strand cable.

This is coated with brass, high in zinc, to prevent corrosion and because that alloy has been found to form the strongest bond with rubber. A layer of wire cable is wound around a rubber core over a cylindrical drum, then a second layer of rubber is applied. A tire ply is bias-cut from this sheet, with the



This could be your boy or your pal

Your Pint of Blood Might Save His Life. Blood defeats death! On scores of battle fronts, precious blood—given from a heart-felt desire to serve—is routing pain and shock and utter exhaustion. Blood is the magic fluid of life. It is your privilege to give it—*here and now*. This is your part to play, that your boy—your Pal, may live.

Do your blood-bit, and thus help to prolong useful vital lives through their natural span. This is the debt of gratitude of us all, to the boys in uniform. Only our own life blood can buoy the life flame of the grievously wounded. So, give of your blood, that men

may live and that a better, freer world may be assured.

Here at Diebold, we are all 100% behind the war effort. We give of our time, our energy, our prayers. But, we back these efforts by buying war bonds, and by giving generously of our vital life blood. We are so proud, thus to serve.

DIEBOLD, INCORPORATED
CANTON 2, OHIO



BUY WAR BONDS!

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Systems to Fit the Routine.

Ready for
immediate delivery

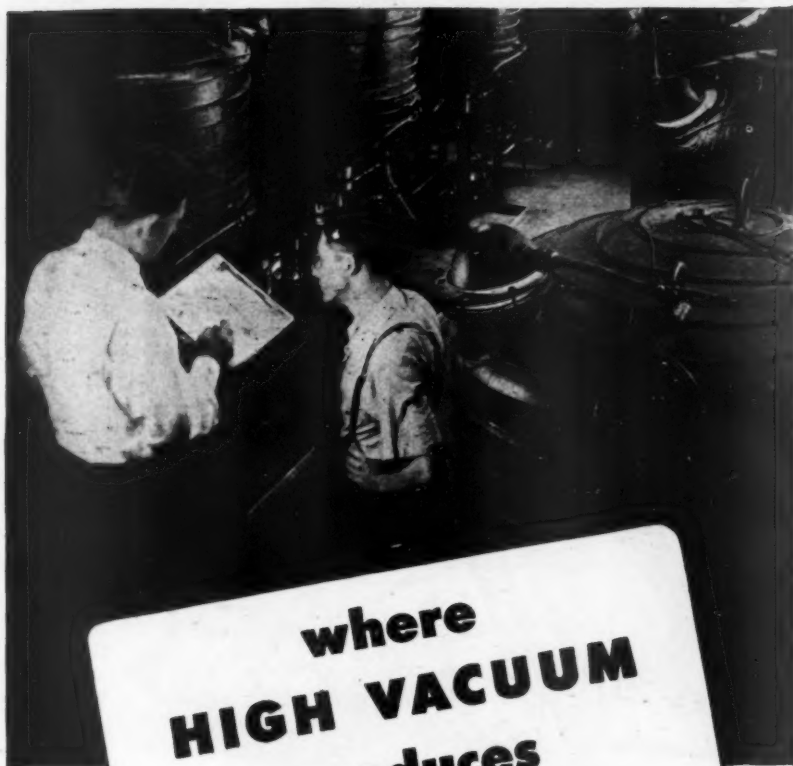
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Available when victory comes—Safes, Money Chests, Electric Record-Desk Safes, Bank Vaults, Office Accessories

★ ★ ★ ★ ★ ★ ★ ★



where HIGH VACUUM produces VITAMINS

High-vacuum technology at work. Part of DPI's molecular still room. Torkel Korling photograph.

THOSE odd shapes in the photograph are some of the many high-vacuum molecular stills which turn smelly, low-potency fish liver oils into bland, odorless, stable, high-potency concentrates of vitamin A.

The production of these Vitamin A Esters* concentrates is one of our principal activities here at DPI. The production of high-vacuum pumps, gauges and other equipment is another principal part of our business. In the still room pic-

tured here, they work together. In fact, our vitamin "production line" has been the birthplace of many notable improvements in our high-vacuum equipment. And these vacuum equipment improvements in turn have helped us to produce more and better vitamin concentrates.

This hard-won experience of DPI in two distinct but related fields may be of great value to you. We invite your inquiry.

*Protected by U. S. product patent No. 2,205,925 and more than 50 process patents.

Distillation Products, Inc.



Pioneering High-Vacuum Research

755 Ridge Road West, Rochester 13, New York

*"Headquarters for Oil-Soluble-Vitamins
and High Vacuum Equipment"*

transverse wires at an angle of about 45 deg.

Designers say that two such plies impart a bursting strength equal to about six fabric plies.

● **Rejected for Planes**—Among the speculative possibilities of the wire-cord tires were their use on aircraft, where weight is an important factor. It is understood, however, that tests were unsatisfactory because the high degree of flexing—up to 35%—to which the tire is subjected by landing shock further decreased the low fatigue-life which is the wire tire's major disadvantage.

Another urge behind the wire-cord experiments was the possibility that their use in heavy-duty truck and bus tires would overcome the problem of internal heat which causes such tires, when built of synthetic rubber, to deteriorate rapidly. Tire engineers consider 250F the critical temperature for fabrics, while for rubber it is 300F to 350F. Again, however, low fatigue-life was the insurmountable handicap of the wire tire.

● **Glass Fabrics Inelastic**—The new glass fabrics also were tested hopefully. Their resistance to heat, of course, was all that could be desired, and they had ample tensile strength. Inelasticity caused their rejection.

It is possible, of course, that reduction in the cost of fine-drawn wire might shift the economic balance between wire and fabric tires. But until it does, rubber technicians are agreed that the wire tires cannot compete, and will remain of limited application and experimental interest.

Goes Straight

Crooked, knotty tamarisk overcomes handicaps and is now suitable for big scale use as wood for furniture.

Back in 1910, George Kinne got some cuttings of tamarisk, a white hardwood native to the eastern Mediterranean and tropical Asia, from Algeria and planted them in a wind-break on his farm near Coolidge, Ariz.

Enthusiastic about the results, Kinne gave cuttings to neighbors, and later became just as enthusiastic about tamarisk as a cabinet wood. He made furniture for himself to show how well the wood could be worked.

● **Grand Rapids Likes It**—During the depression, Arizona farm experts, looking for new sources of farm income, sent samples of tamarisk wood to furniture manufacturers in Grand Rapids for an opinion.

Grand Rapids liked tamarisk. It was

BRING YOUR OPTICAL PROBLEMS TO HEADQUARTERS

Bausch & Lomb offers: 1. America's largest precision optical facilities. 2. Ninety years of optical engineering. 3. An optical Scientific Bureau. 4. Its own optical glass plant.



Pattern for Postwar Progress

Here are the portraits of two of today's metals—brass and steel. From these and other metals, many of them developed as a result of wartime needs, will come the new alloys of tomorrow. A cross section sample, carefully polished, and placed on the stage of the Bausch & Lomb Metallographic Equipment looks like this on the viewing screen of the camera. From the photograph the metallographer can very readily tell how it will behave in action, what impurities are present and in what proportion.

In that same photograph he also sees a pattern for postwar progress. For the same qualities that have made fighting steel better, will help to make better and longer lasting cars, planes, razors and machines to make other postwar products.

B&L Metallographic Equipment was in use throughout the metal industries before the war, to help check and maintain the qualities American industry insisted upon. When war came, the job of the metallographer became even more important, for armies fight on iron and steel, brass and aluminum,

copper and a thousand and more alloys. But war has brought metallurgic progress, progress that the metallographer witnesses every day. Through his equipment, progress that in the postwar world, will create a wider demand for the precision optical instruments of search and control, such as the metallographic equipment, which Bausch & Lomb manufactures.

BAUSCH & LOMB

OPTICAL CO., ROCHESTER, N. Y.





Awarded to the
Detroit and Muskegon
Plants of
Continental Motors
Corporation
for High Achievement.

Continental *Red Seal* Engines

POWER TO WIN

It is the capacity for understanding the role of power, and the ability for adapting that power to the need which has made Continental a strong right arm of our government in its battle against oppression.

It is one thing to have the "know-how" for tackling so many diverse power problems and quite another to have the production skill for doing the seemingly impossible with split-second coordination.

Continental has both . . . a fact that holds tremendous promise for the age of peace.

Your Dollars Are Power, Too.
Buy War Bonds and Keep Them!

Continental Motors Corporation

MUSKEGON, MICHIGAN

found to be strong, hard, and machineable, and to resemble white oak in color and grain. The furniture men said they could use tamarisk in large quantities, if straight logs were available—and there was the rub.

• **Now Grows Straight**—In Arizona, tamarisk had been valued only for its quick growth to make a hedge, and for its curious property of absorbing creosote without heating, making it resistant to rot and termites. The millions of board feet available were all crooked and knotty.

Arizona Agricultural Experiment Station reports that test plantings have showed that tamarisk planted by forestry methods would grow straight trunks, and fast—1-ft. diameter in two years, a 2-ft. thick log in four years. Also, the experimenters found, tamarisk did well on soils too poor for crops, especially alkali soils, and needed irrigation only during the first year.

• **Planting Expected**—Now the furniture industry is ready to do the advertising necessary to introduce tamarisk as soon as a supply of the timber is available.

Under the spur of change brought by reconversion, with their market for cotton falling off, and with new cash crops badly needed, Arizona farmers are expected to do something about tamarisk.



PRESSURE CHECKER

An ordinary household gas meter records vital tests on pressurized chambers for B-29 Superfortresses at Hudson Motor Car Co. Hooked into the chamber's pressure line, the meter checks on leaks by showing the flow of air necessary to maintain compression. Hudson engineers put the gas meter to work after a futile search for the scarce scientific instruments that are normally used. Rental on the meter: \$3 monthly.

LYON WAR PRODUCTS

In Action
On All Fronts



Working on more than 3,000 contracts, Lyon has produced complete units, sub-assemblies and parts in steel and aluminum for a wide variety of America's most famous battle equipment.

Until victory is won, our business is war business. Our manufacturing plants are well organized as a result of more than 43 years' experience in sheet metal fabrication. Facilities include modern equipment for perforating, blanking, forming, assembling, drawing, enameling, annealing and lacquering. Approximately 2,000 experienced factory workers. Complete toolrooms in all plants.

Write on business letterhead for book "Craftsmen in War Production"... giving detailed information on Lyon's Facilities, Manpower, Finances and Management.

WHAT ABOUT POST-WAR?

Do your post-war products include sheet steel or aluminum? Check Lyon's manufacturing and designing facilities.

LYON

METAL PRODUCTS, INCORPORATED

General Office: 210 Madison Avenue, New York, N.Y.
Sales and District Offices: 210 Madison Avenue, New York, N.Y.
Branches in all major cities.



*Cut-away view of
New Departure
Ball Bearing*

Ball Bearings to destroy Ball Bearings

At least twenty ball bearing plants in fourteen or more cities of Fortress Europe have been blasted again—and again—as the quickest way to stall most enemy war production. Because wherever shafts turn, for the enemy as well as for us, ball bearings are utterly indispensable.

And this continuing job is being done by thousands of great bombers—each functioning with thousands of ball bearings—from nose to tail.

They are vital parts of every plane, tank, warship, fire control, landing craft. Even after breaking world's production records, New Departure is still hard pressed to satisfy the demands of our Army, Navy, and our allies.

Such an unprecedented demand is an accurate index of ball bearing efficiency in bearing the loads, maintaining precise location of moving parts, reducing friction and wear to an absolute minimum.

A New Departure engineer is your assurance of bearing performance. Consult him while your designs are in the formative stage.



nothing rolls like a ball
NEW DEPARTURE
BALL BEARINGS

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT

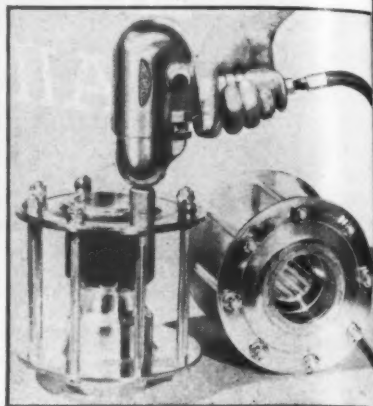
Sales Branches: DETROIT, G. M. Bldg., Trinity 2-4700

CHICAGO, 300 N. Michigan Ave., State 5454 • LOS ANGELES, 5035 Gifford Ave., Kimball 7161

NEW PRODUCTS

Pneumatic Impact Wrench

A calibrated adjustment screw on the new Model 131 Aro Pneumatic Impact Wrench enables the operator to set any nut or bolt to any desired tension. A six-bladed rotor whirls two cylindrical



steel rollers causing them to be thrown repeatedly by centrifugal force against a "hammer" and furnishing a succession of impacts to the work. With the achievement of the preselected tension, the rollers rebound from an "anvil" without engaging the hammer.

The manufacturer, Aro Equipment Corp., Bryan, Ohio, reports that its method of impacting "prevents any stretching of the threads on either the nut or bolt and guarantees maximum torque. By the same token, in removing nuts or bolts, there is no 'burning' of the threads." Model 131, which weighs only 4½ lb., has an over-all length of 6½ in., and a capacity up to ¾-in. bolt size.

Thiokol "ST"

Newest synthetic rubber of the polysulphide type is Thiokol "ST," formulated by the Thiokol Corp., 780 N. Clinton Ave., Trenton 7, N. J. It is said to have "extreme low temperature flexibility without the addition of plasticizers plus excellent resistance to solvents, ozone, and sunlight." An unpleasant odor commonly associated with polysulphides has been reduced to a "negligible factor." Cold flow (the tendency to take on permanent deformation under pressure or stress) is reduced to a new low for synthetic rubbers.

Electronic Flame Cutter

Plastic cylinders, 5½ in. in diameter and 10½ in. long, are the phonograph-like "records" that guide the new Stru-

Wells ISC Electronic Flame
 ter in the automatic cutting of steel
 es into any contours desired. Rec-
 s promise to last indefinitely because
 markings on them are scanned only
 a beam of light and translated into
 movement of one or more cutting
 es through an electronic system.
 The standard machine, developed by
 Struthers Wells Corp., Titusville,
 has two 10-ft. arms with a torch
 each to cut two plates 120 in. wide
 ultaneously. Additional torches can
 added to cut as many as 16 narrower
 es to a given contour at one time—
 controlled by the plastic record.

THINGS TO COME

Fundamentally the same sort of electrostatic field that causes grit grains to jump upright into place on sandpaper during the modern process of manufacture and urges bits of lint and paper to leap to amber after it has been charged by the ancient process of rubbing it on silk or a cat's back will underlie the postwar finishing of products ranging from clay flower pots to metal refrigerators and automotive parts. New economies in paint, lacquer, and varnish are foreseen in electrodepositing paint sprays, together with new uniformities in surface coatings.

Standard spray guns of the low pressure, automatic type will be used. Articles to be coated will be hung on conveyors. As the finely atomized mist of finishing material discharges from the guns, each particle will go through an electric field of high voltage and low amperage taking on an electrical charge which will cause it to follow the lines of force directly to the piece being coated. Paint lost in the surrounding air will be negligible. Since such a field includes bent lines as well as straight ones, the spray will follow them faithfully around corners to some degree, coating the sides as well as the fronts of small items.

Wash day will not be followed by ironing day when certain synthetic fibers can return from war and take up their rightful places in civilian clothing and household "linens." Since their smooth press and legitimate creases will be molded in permanently during manufacture, they will need only to be washed and dried in a modern washing machine to be ready for immediate wear.

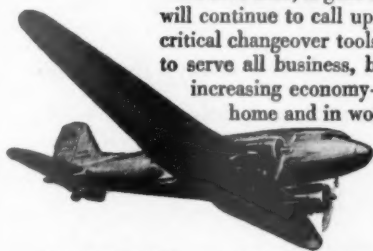
When the call is for

*Toasters—
not Torpedoes*



War is the nation's number one job until the enemy surrenders—unconditionally! But even now, industry must plan for converting back to peace production—to provide jobs for millions of returning service men, in the fastest possible time.

To save time, to *gain* time—millions of man-hours of time—industry will continue to call upon AIR EXPRESS for the high-speed delivery of critical changeover tools and material. And AIR EXPRESS will continue to serve all business, but with greatly expanded services and ever-increasing economy—in searching for new opportunities both at home and in world-wide markets.



**A Money-Saving,
High-Speed Wartime Tool
For Every Business**

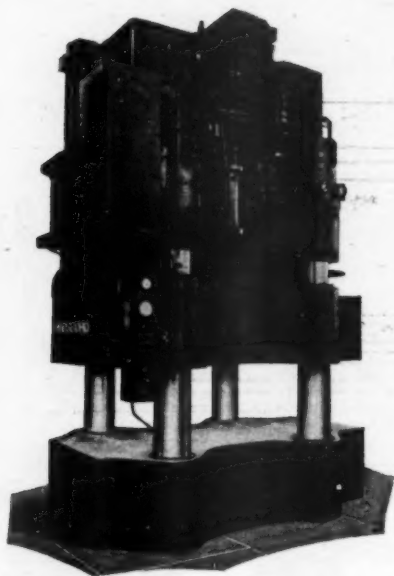
As a result of increased efficiency developed to meet wartime demands, rates have been reduced. Shippers nationwide are now saving an average of more than 10% on Air Express charges. And Air Express schedules are based on "hours", not days and weeks—with 3-mile-a-minute service direct to hundreds of U.S. cities and scores of foreign countries.

WRITE TODAY for "North, East, South, West"—an informative booklet that will stimulate the thinking of every executive. Dept. PR, Railway Express Agency, 230 Park Avenue, New York 17, N. Y., or ask for it at any local office.

AIR EXPRESS
Gets there FIRST

Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION
 Representing the AIRLINES of the United States

MORE PROPELLERS FOR CURTISS-WRIGHT



Day and night eleven 2000-ton Birdsboro Hydraulic Presses of this type are at work in the Curtiss-Wright propeller manufacturing plant at Caldwell, New Jersey and Beaver, Pa., producing precision-formed electric propellers for America's air armada.

Throughout the entire aircraft industry today, Birdsboro Hydraulic Presses are doing big jobs, and doing them well. Production and management men alike realize when it's a press problem, it PAYS to ask Birdsboro.



Birdsboro Steel Foundry and Machine Company, Birdsboro, Pa.



WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priority price control, and transportation

Increased Civilian Supply

House trailers may now be sold to migratory war workers in essential jobs other housing accommodations within reasonable distance of the place of work are inadequate. "Reasonable distance" defined as an hour's ride, means of transportation not specified. . . . Restrictions on use of metals in utility-type incandescent lighting fixtures have been removed from Order L-212. . . . A small amount of Freon 12 has been made available theaters in which lack of this refrigerant caused acute hardship (page 74). . . . WFA and WFA have jointly authorized the lease of enough material to expand the nation's annual production capacity of aluminum dehydration facilities by 80,000 tons.

Relaxation of Priorities

Amount of ascorbic acid (vitamin C) which may be purchased without special WPB authorization has been increased from 3 kg. to 30 kg. and control of the product has been shifted from Order M-269 (which has been revoked) to Order M-300 (the general chemicals order). . . . Order M-96 has been revoked, removing all restrictions on the use of agar. . . . Restrictions on the use of gold and platinum in jewelry have been removed by revocation of Order L-45. . . . WPB will again consider applications for licenses to import raw unprocessedistle from Mexico.

Cotton Yarns and Fabrics

Pending a complete cost study, OPA has announced in advance increases of 2¢ a lb. to be made in mill ceiling prices of cotton Class A print cloth in gray and in mill prices of certain other print cloth yarn fabrics. At the same time OPA announced forthcoming price increases (again at the mill level) of from 10% to 15% in combed cotton yarns and of 7½¢ in carded cotton yarns. Sellers may not charge these prices, however, until the increases have been officially put into effect.

Consumer Durable Goods

To encourage production of a number of items of low-priced consumer durable goods, OPA has announced that manufacturers may apply for limited price increases on these goods. Wholesale and retail adjustments are also authorized. Producers who qualify for higher price ceilings are those who face an overall loss on operations under present ceiling and those whose ceiling prices on the

ies are below factory costs, regardless of their over-all position. Among the items affected are the following: folding chairs, carriages, brooms, carpet sweepers, fountain pens, galvanized ware, garment hangers, certain kitchen utensils and equipment, some types of furniture, mattresses, mops, and household iceboxes. Amendment 16, Order A-2, Regulation 208.)

Work Clothing

The OPA regulation covering staple work clothing has been completely revised at all sales levels, with tighter controls in the form of dollar-and-cents ceilings—at wholesale and retail. This action follows recent rulings increasing all prices on denim and sanforized chambray to reflect parity to the cotton power, as stipulated by the Stabilization Extension Act. The manufacturer of work garments may pass on the increased cost of the materials to the distributors, who will generally absorb it, though distributors are allowed what OPA calls an adequate markup judged by peacetime standards. Such items as dungarees, bib overalls, chambray and covert work shirts are affected by the revised price ruling, which will go into effect Sept. 1, or Aug. 16, at the option of the seller. (Revised Regulation 208.)

Gasoline

Refiners' maximum prices on the new 74 octane ASTM grade of gasoline have been established by OPA at 1¢ of a cent below the prevailing maximum prices for 72-74 octane gasoline. This ruling takes care of the new specifications for regular gasoline ordered recently by the Petroleum Administration for War (BW-22'44,p74), though all gasoline distributed as Regular Grade is included in the new price range. Retail and tank wagon ceilings remain unchanged. (Amendment 16, Regulation 88.)

Refiners in eleven midwestern states

Dialogue: *Between a Vice President and a Potato Bug*

Bug: "Well, well! What you doing in your Victory Garden at five o'clock of a Wednesday afternoon?"

V.P.: "This is the time I saved last week."

Bug: "Howzat?"

V.P.: "I installed a better way to get things done ... it's called the Dictaphone Method."

Bug: "New spray?"

V.P.: "Nope...I'm using a dictating machine! It lets me work independently of my secretary."

Bug: "Who ever heard of two potato bugs doing a job one could do better?"

V.P.: "We both do our jobs better, and quicker. So we have more time for other things, like



Victory Gardens. On guard, bug, your days are numbered."

Investigate the time-saving Dictaphone Method. A Dictaphone representative will gladly show you the two types of Dictaphone dictating machines...the familiar Acoustic type, with speaking tube and the new Electronic models, with a desk microphone or hand microphone. Electronic equipment for Dictaphone Electronic Dictation, also records both ends of telephone calls and, under proper conditions, over-the-desk conversations. Either type doubles your ability to get things done. DICTAPHONE CORPORATION, 420 Lexington Ave., New York 17, N. Y.

DICTAPHONE



The word DICTAPHONE is the registered trade-mark of Dictaphone Corporation, makers of dictating machines and other sound recording and reproducing equipment bearing said trade-mark.

ARMY
NAVY

Cairns Corp.
Brooklyn, N. Y.
Electrical Research Laboratories, Inc.
Evanston, Ill.
Marietta Mfg. Co.
Point Pleasant, W. Va.
The Ingalls Iron Works Co.
Verona, Pa.
Solar Aircraft Co.
Des Moines, Iowa
Leich Electric Co.
Genoa, Ill.

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

NEW PRODUCTS DEVICES... Processes *Available*

ARE you ready to meet severe post-war competition? Our "New Products Service for Manufacturers" will enable you to obtain new products and processes without encountering the usual expense and difficulties. In addition to the many products now available, we have a steady flow coming in as the result of our long experience and organized effort in this field.

We study your facilities, experience and distribution set-up and submit only the items that deserve serious consideration. Our engineering background has proved invaluable to clients having difficulty deciding what type products they should seek. Here is a reasonable cost service that will begin to function immediately for your company.

Time is valuable. Phone, wire or write for details of this service.



New Products Division
DESIGNERS FOR INDUSTRY, Inc.
2915 Detroit Avenue, Dept. B-7
CLEVELAND 13, OHIO

have been provided by OPA with a simplified formula for figuring delivered-at-destination prices on tank car and transport truck sales of gasoline and kerosene. (Amendment 15, Regulation 88.)

Hardwood Lumber

Large consumers of lumber may obtain delivery of a portion of their fourth-quarter allotments of hardwoods during the third quarter, even though the specific fourth-quarter allotments have not as yet been made. The maximum amount of additional hardwoods which may be ordered under this directive is the larger of (1) 20% of the amount ordered before Aug. 15 for third-quarter delivery, or (2) 20% of the amount reported in inventory when application for fourth-quarter allotment was filed. The liberalization was made possible by a new estimate of third-quarter hardwood production. (Order L-335, Direction 14.)

Uranium

Strict allocation controls have been placed on uranium, its compounds, alloys, and mixtures (containing 5% or more by weight of uranium oxide). On and after Sept. 1, sales of 10 lb. or more of uranium to any person in any calendar month will be prohibited unless authorized by WPB, while sales for certain uses continue, as formerly, to be prohibited altogether. Anyone having in his possession at any time 2,000 lb. or more of any ores, residues, or tailings containing 5/100% or

more by weight of uranium oxide must file with WPB information concerning his holdings.

Construction Services

On and after Aug. 26, the construction industry is authorized by Economic Stabilization Director Fred M. Vinson to raise its current ceilings for construction services an amount sufficient to cover increases in wage costs since Oct. 3, 1942, provided the wage increases have been approved or authorized by a proper governmental agency. (Revised Regulation 251.)

Aluminum Cans

Producers of aluminum cans to be used for the packing of lard, baking powder, tobacco, tooth powder, pharmaceuticals and other specified commodities must obtain OPA approval on their proposed pricing methods for these cans. This ruling affects manufacturers who will make use of the aluminum recently released for experimental purposes in making cans to combat the growing shortage of paper and tin containers. (Amendment 165, Revised Supplementary Regulation 14.)

Imported Commodities

WPB has removed all governmental control over 51 imported commodities. Among the more important items affected are lead tin (except tinplate scrap), fluorspar, molasses, various types of wool, barley malt, beans, peanut butter, garlic, and glue. (General Imports Order M-63, as amended.)

Fish

Specific dollar-and-cents ceilings set by OPA on certain kinds of cured and smoked fish at the processor level will result in an average increase of approximately 10¢ a pound to consumers. The fish covered are smoked whitefish, smoked kippered salmon, smoked sablefish, and smoked mild-cured salmon (lox). The increases were granted to remove a squeeze on processors. Since retail ceilings are figured by a fixed markup, the increases will be automatically passed on to consumers. (Regulations 550.)

Other Price Actions

Amendment 1 to Regulation 530 revises maximum prices on pulpwood imported from Quebec, New Brunswick, and Nova Scotia to bring them into line with changes made by the Canadian government in pulpwood ceilings. . . . Ceiling prices on canned meats sold by intermediate distributors are reduced by Amendment 1 to Revised Regulation 156 to the same extent that manufacturers' ceilings have been reduced. . . . Revised Supplementary Regulation 141 authorizes producers who have increased the size or weight of bread or rolls to add one cent to their present ceilings on day-old, stale, or broken bread or rolls. . . . The amount that cotton compress and warehouse operators may charge this season has been set at 17% above their ceilings for the 1942-43 season by Amendment 166 to Revised Supplementary Regulation 14.

Serving this Northern California Area

AMERICAN TRUST COMPANY
Banking Since 1854

HEAD OFFICE:
SAN FRANCISCO

DEPOSITS OVER
\$600,000,000

MEMBER FEDERAL DEPOSIT INSURANCE CORP. MEMBER FEDERAL RESERVE SYSTEM

Making strong the things that make America strong



Increasing Draw-Bar Pull... Pushing Bicycle Traffic

A WAR-WORKING LOCOMOTIVE . . . hauling heavier loads at faster speeds . . . begrudging every minute required for repairs . . . needs bolts and nuts so strong they defy the shocks and strains of pulls and bumps and clickety-click vibration.

A bicycle . . . riding a busy assembly line . . . needs fasteners with threads so true they speed the get-away and ease the drive home.

Whether strength or accuracy is the chief requirement of your product's fasteners, you get both when you use RB&W

EMPIRE products. For, the same manufacturing steps that make them strong build accuracy into their dimensions.

For 99 years, constantly improved strength, accuracy and finish of RB&W products have resulted from continuous research and progress. Starting with RB&W's development of the first automatic cold-header, this progress has been sustained by great investments in the most modern manufacturing equipment and latest methods for quality control from raw material to finished fasteners.



For proof of this maximum combination of strength, accuracy and finish you need only look at the famous names in farm implements, automobiles, railroads, aircraft, power and transmission equipment, construction and general industry that have standardized on RB&W fasteners.

RB&W

Russell, Burdsall & Ward Bolt and Nut Company.
Factories at: Port Chester, N. Y., Coraopolis, Pa., Rock Falls, Ill. Sales offices at: Philadelphia, Detroit, Chicago, Chattanooga, Los Angeles, Portland, Seattle.



AND ALLIED FASTENING PRODUCTS - SINCE 1848

RUSSELL, BURDSALL & WARD BOLT AND NUT COMPANY

MARKETING

Unions Seek Air

C.I.O.'s political arm is prosecuting careful drive against broadcasters by intervening in their relicensing hearings.

Radio is having labor pains. Both the A.F.L. and the C.I.O. are pressuring networks and stations for time to broadcast their views on controversial subjects.

● **Around the Table**—William Green is seeking time for the American Federation of Labor by way of the conference table. He wants 13 weeks each from the four major networks, the Blue, CBS, MBS, and NBC, during 1945. A Washington conference Aug. 11 between Green and network officials was described as "cordial." No decision has been reached by the nets, however.

Philip Murray's C.I.O., prodded by Sidney Hillman's Political Action Committee, is demanding time to broadcast "in the public interest." The C.I.O.'s threat to bring before the Federal Communications Commission any station which refuses to acquiesce is not an idle one. On Aug. 16 public hearings on a C.I.O. United Auto Workers petition charging WHKC, Columbus, Ohio, with failure to operate in the public interest were begun before Commissioner Ray C. Wakefield.

● **Dual Show Snubbed**—For many weeks NBC gave time for the "Labor for Victory" program, a Sunday stint in which the A.F.L. and C.I.O. alternated. But Green opposed the dual participation and the program finally went off the air. The C.I.O. complained, too—mainly because its programs could be heard only fortnightly.

What threatens to become a major political issue, with radio in the middle, is the P.A.C. campaign to get around the "controversial issue" bar in the National Assn. of Broadcasters code of ethics which makes it difficult for a union to buy time on the air. On June 1, 1943, Columbus (Ohio) Local 927, U.A.W.-C.I.O. (Curtiss-Wright employees), bought a 52-week Sunday half-hour on WHKC for an "educational" program to promote good relations between labor and management.

● **Blast Rejected**—All went well until Richard T. Frankenstein, vice-president of the U.A.W., submitted a speech which the station refused to broadcast, told him he'd have to rewrite and take

out "controversial" issues. Frankenstein wanted to lambaste Senators Robert A. Taft, Burton K. Wheeler, and Gerald P. Nye and Rep. John M. Vorys, while patting President Roosevelt's back.

Meantime, through normal process, WHKC's license came up for renewal before the FCC. On Sept. 17 Local 927 and the U.A.W. filed a petition to intervene, charging that WHKC, by "censorship," was not operating in the "public interest." The commission denied the petition, renewed the WHKC license for a normal period on May 16, 1944.

● **FCC Reconsiders**—On June 3 the U.A.W. filed a new petition, asking the FCC to reconsider. Aid of New Deal congressmen and other topside officials was enlisted. Result: The FCC set the petition, once denied, for hearing.

P.A.C. got busy, instructed all regional directors to apply for radio time needed "between now and November," report to national headquarters "all refusals to grant or sell P.A.C. a fair share of time"; directions also called for re-

port on "all cases of censorship." C.I.O. reportedly has a list of some 40 stations against which charges will be filed.

● **Subpoenas Denied, Issued**—Commissioner Wakefield denied U.A.W. petitions to subpoena Alfred P. Sloan, Jr., James S. Adams, and William S. Rainey, officials of the National Assn. of Manufacturers; the union contended that WHKC carried programs sponsored by three N.A.M. members.

But Commissioner C. J. Durr, whose wife is vice-chairman of the National Committee to Abolish the Poll Tax and a P.A.C. member, issued subpoenas for scripts of commentators heard over WHKC.

● **Refusal in Writing**—Spurring C.I.O.'s drive for time is Radio Handbook, issued by P.A.C., urging members, "when you shout—make it loud." When a station manager turns deaf ears to pleas for free time—or paid—C.I.O. members are to get his refusal in writing, copy the letter, attach explanations why his refusal is "unfair" and "send copies of his and your letter to James Lawrence Fly, Chairman, Federal Communications Commission, Washington, D. C."

Where will it end? Eventually in Congress, where many members long have felt a need for new radio legislation to bring the 17-year-old radio act up to date.



WAITING FOR FILM

Customers waiting to buy film at one of the Fox photographic stores in San Antonio bring into focus the shortage of film amidst an unprecedented demand for snapshots. Selling film only on Fridays and Saturdays, Fox

units often find queues three-deep and a block long—requiring outdoor ushers. Receiving only about 50% of prewar supplies (BW—Mar. 18'44, p36), most dealers ration one roll to a customer. And with so many soldiers and families anxious to exchange pictures, that's a mighty slim ration.



Slash pine seedling

On this Tree...
hang great things for the South

ONE OF THE GREAT DRAMAS of this age is the continuous effort of scientific research to enlarge and extend the uses of our natural resources. An outstanding example of the success of such efforts is slash pine, an abundant natural resource of the South that has had only limited industrial uses until recently.

To the late Dr. Charles Herty, the South's large areas of slash pine had always presented an industrial challenge. After years of study and experimentation, he finally demonstrated that this slash pine could be a source of valuable high-grade wood pulp suitable for the production of rayon.

Rayonier Incorporated developed the commercial method which is now being used to produce such pulp.

The American Viscose Corporation, largest producer of rayon in the United States, cooperated with Dr. Herty in his early experiments . . . and in recent months has obtained a substantial portion of its wood pulp from southern slash pine.

There promises to be a sizeable opportunity for southern agriculture in this new market for slash pine. It flourishes on land that is poor or even unproductive. It reseeds itself . . . requires very little care during the growing period . . . may be harvested in as little as ten years. Moreover, it can be of considerable aid in achieving crop diversification.

We are proud to have helped in the development of so promising an outlet for this natural southern crop.

AMERICAN VISCOSE CORPORATION

Producer of CROWN Rayon Yarns and Staple Fibers*

Sales Offices: 350 Fifth Avenue, New York 1; Providence, R. I.; Charlotte, N. C.; Philadelphia, Pa.

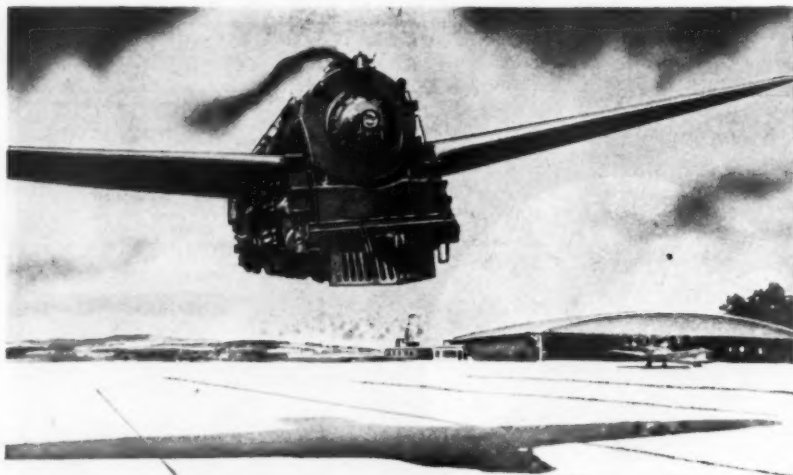
Plants at: Marcos Hook, Pa.; Roanoke, Va.; Parkersburg, W. Va.; Lewistown, Pa.; Meadville, Pa.; Nitro, W. Va.; Front Royal, Va.

BUY UNITED STATES WAR BONDS AND STAMPS



*A better way
to buy
Rayon Fabrics*

This identification is awarded only to fabrics containing CROWN rayon, after they have passed the CROWN Tests for serviceability.



LOCOMOTIVES *can't fly, but—*

Some modern planes—big transports and heavy bombers—have individual wheel loads greater than the individual wheel loads of the heaviest steam locomotives. Even heavier planes are planned. Airport runways for safe and economical operation of planes *must* have pavements designed to carry anticipated loads.

Engineers of communities now planning construction of airport facilities can get the help of our engineers in designing concrete pavements which will carry any anticipated wheel loads and cost little to maintain.

CONCRETE *the Versatile Structural Plastic*

Concrete is the most widely used and versatile of construction materials, adapted to a multitude of uses besides low annual cost airports, highways and street pavements.

Concrete is especially suited to building firesafe, low annual cost schools, hospitals, factories, attractive homes

or towering dams. It is ideal for sanitary dairy barns, milk houses, granaries, or hog and cattle feeding floors.

Concrete offers you firesafety, long life and low annual cost.

We will gladly send you helpful literature on specific uses of concrete. Free in United States and Canada.

PORTLAND CEMENT ASSOCIATION

Dept. 8d-12, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of concrete . . . through scientific research and engineering field work

BUY MORE WAR BONDS



Market for Planes

Survey rates regions of U. S. in potential importance as postwar outlet for aircraft, parts and accessories.

The No. 1 potential postwar marketing region for aircraft, aviation parts, and accessories will be the Middle Atlantic states with their concentration of 7,278,911 families and 25.21% of the nation's buying income, according to a survey recently completed by Aviation Magazine, a McGraw-Hill publication, and published in its May, June, and July issues.

• **Factors in Survey**—The state-by-state survey, designed to assist manufacturers in setting up postwar distribution networks, took into consideration such factors as family population, buying income, retail sales, automobile, aircraft, and pilot registrations.

The existence of 4,703 registered aircraft at 344 airports in the Middle Atlantic states indicates, according to the survey, the need for a substantial number of sales and service organizations.

• **For New York Area**—Distribution points are indicated for metropolitan New York at Long Island, Westchester County, or northern New Jersey, the magazine stated. Other desirable distribution points for the Middle Atlantic states are Buffalo, Philadelphia, and Pittsburgh, the survey indicates.

Since a large part of Connecticut could be served by the New York distribution area, Boston, according to the survey, is the next logical point from which to cover the New England area, which is rated seventh in importance. This region, including part of Connecticut, includes some 2,201,421 families and 8.27% of the U. S. buying income.

• **Overlapping Area**—The recommended distribution area for the Middle Atlantic states, as revealed by the survey, spreads southward from Philadelphia and Pittsburgh to overlap the South Atlantic territories. But, the survey rates the eight South Atlantic states as the fourth distribution area in the country with their 4,278,771 families and 9.24% of the national buying income. Therefore the survey indicates need of a distribution point at Baltimore or Washington.

As population thins out southward the next distribution point, the survey states, would be Atlanta with the possibility of Miami to serve the southern half of Florida.

• **Base at Atlanta**—Similarities in terrain, the survey states, make it possible to serve the lower half of the East

South Central region—Alabama and Mississippi—from the Atlanta base. This region also includes Kentucky and Tennessee and has 2,622,203 families and 4% of the U. S. buying income.

If separate coverage is required for the whole East South Central area, Nashville would come closest to meeting the basic requirements of keeping dealers within 350 miles of their distributor, the survey reports.

• **No. 2 Area**—Second to the Middle Atlantic area is the compact East North Central region with 7,275,245 families and 22.82% of the nation's buying income.

Here the most logical distribution points, according to the survey, would be Chicago and/or Detroit, with additional possible locations at Cleveland, Columbus, Cincinnati, Indianapolis.

• **Twin Cities Region**—The seven West North Central states are listed by the survey as the fifth important region with 3,688,149 families and 8.39% of the buying income.

This area would best be served from the Twin Cities, the magazine reports, adding that Omaha could serve Nebraska and western Iowa, although Des Moines is also a possibility as are Davenport, Iowa, and Moline, Ill. Eastern Kansas, the survey indicates, would come within the area served by Kansas City, which would also extend to western Missouri.

According to the survey, eastern Missouri would be served from St. Louis, and Arkansas could probably be served from St. Louis or from a center located in the West South Central area such as Tulsa or Oklahoma City.

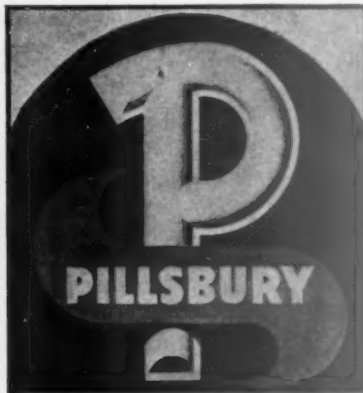
• **No. 6 Area**—In addition to Arkansas and Oklahoma, Louisiana and Texas constitute the West South Central region which the survey rates sixth in importance with a family population of 3,337,230 and 6.68% of the national buying income.

In Texas, Aviation Magazine reports, it is a toss-up between Dallas and Ft. Worth. However, the extent of the area to be covered, the survey reports, would indicate an additional distribution point such as Houston or San Antonio. If the 350-mi. radius is to be maintained, a distributor should be established at El Paso and another at Tucson or Phoenix, according to the survey.

• **Mountain Region**—The eight states of the mountain region are rated eighth, with 1,120,450 families and 2.49% of the buying income. Denver and Salt Lake City are termed attractive potential distribution centers in the mountain region, as are Billings, Mont., and Great Falls, Missoula, or Butte.

A distributor in Seattle could cover all of the state of Washington and most of Oregon, but the survey states that

Pillsbury Adds New Trademark



"Pillsbury's Best XXXX," trademark of Pillsbury Flour Mills Co. since 1872, now has a younger brother.

The famous barrelhead insignia is being replaced on package foods—pancake and cake flour, farina, corn meal, and hominy grits—by a capital P crossed by a swirl upon which is printed the word "Pillsbury." It will be used on all six sides of packages. The old trademark will be continued on other products.

• **Story of "XXXX"**—There's an interesting story back of the "XXXX" in the old trademark. As recounted in the Pillsbury 1944 annual report, the story is:

"It seems that three X's, arranged XXX, have been the symbol of bread for centuries and have been a symbolic allusion to the Crucifixion, with each X believed to stand for one of the crosses on Calvary. This symbol . . . in time was adopted by

medieval millers to mark the best flour for bread, and by medieval bakers to mark bread chosen for religious ceremonies. This use had died out long before Pillsbury Flour Mills Co. first came into being.

"However, Charles A. Pillsbury (founder) heard of this story of the lore of milling and immediately said, 'If three X's mean the best, then we'll add another just to show that Pillsbury's Best is really the best.'

"That, according to legend, is why the trademark shows XXXX. . . ."

• **Change of Name**—As another move in streamlining the 75-year-old milling firm, the management has proposed that the name be shortened to Pillsbury Mills, Inc., as "more descriptive of its broadening activities." Stockholders will vote on this proposal Sept. 12, along with another to issue \$7,500,000 in preferred stock to retire outstanding bonds and increase working capital.


a concentration of facilities might indicate a second distribution point for this area at Portland, Ore. Northern California and part of Nevada, the magazine found, could be covered from San Francisco, and Los Angeles would be a natural center for the southern California area. The Pacific region, which contains these three states, is third in distribution importance with 3,013,172 families and 11.68% of the buying income.

RETAILERS POOL BUYING

Highlight in the trend toward pooled buying by retailers was the announcement this week of a new joint buying and promotion organization, Affiliated Retailers, Inc., by two of the country's biggest: R. H. Macy Co. and May Department Stores Co.

Headed by Howard B. Barber, formerly division manager of major appliances at Montgomery Ward & Co., Affiliated Retailers will buy both durable and soft goods for the two organizations. It will also work with manufacturers in developing special lines of merchandise. Officials of the organization have announced that certain other retailers may be invited to join the new buying group.

For several months the two companies have had an agreement whereby Macy's corporate buying office made use of the May Co.'s Chicago buying facilities. The May Co. operates seven stores, in Los Angeles, Akron, St. Louis, Baltimore, Denver, and Cleveland. Macy's has five units, in New York, Newark, Toledo, and Atlanta. Combined annual sales volume is about \$350,000,000.



The next eye accident
in your plant

may cost many times
the price of the Goggles
that can prevent it

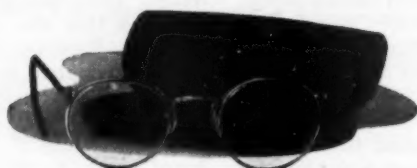


Figure it out for yourself—

The National Safety Council estimates that the average eye accident cost per injured man is \$328.00—and this includes only the actual dollars and cents which can be set down in black and white.

The "hidden" costs generally run *four times* this amount

for spoilage, idle machinery and lost production.

And when you consider that for about 75¢ per eye, AO Safety Goggles will protect a worker's vision . . . help him turn out more work . . . it becomes evident that furnishing AO Goggles for workers is an effective way to cut costs as well as provide protection.

Call in an AO Man and keep your "Production Eyes" Producing

American  Optical

COMPANY

SOUTHBRIDGE, MASSACHUSETTS

Fashions West

San Francisco reveals plans for \$4,000,000 style hub to include manufacturing as well as designing and styling.

San Franciscans last week proudly announced plans for a \$4,000,000 fashion apparel center, a smaller edition of the \$88,000,000 project New York City is contemplating (BW-Jan.29'44, p19) in the scramble for fashion supremacy.

• **To Cover 25 Acres**—The San Francisco project, under consideration for five years, is planned to cover 25 acres and includes 37 buildings. It will be known as Apparel City, and its promoters expect to have the more than 350 San Francisco manufacturers as part of it. By contrast, New York would exclude manufacturers from its fashion center, limit activities to the cultural and artistic.

Incorporators of Apparel City, Inc., are long-established clothing manufacturers. Money for the land is being raised by the sale of \$100 par common stock. Each investor is held to a \$25,000 limit.

• **Seeking RFC Loan**—Once the projected \$750,000 is raised, Apparel City, Inc., expects to get a \$3,250,000 loan from the Reconstruction Finance Corp.

The new project will be not only a manufacturing center, in which electricity as well as materials will be purchased on a cooperative plan, but also a show place. Gantner & Mattern, San Francisco swimming suit manufacturers, has donated \$52,000 for a swimming pool.

• **Its Own Postoffice**—Buyers will find about anything in the clothing, millinery, or dry goods lines in Apparel City, as well as the services of a bank, restaurant, postoffice, and bar.

Once the city is built (the trade believes only the lack of building materials can detain it long) San Francisco will have the first project of its kind. Apparel City will manufacture all lines, competing not only with New York but also with Los Angeles and the couturiers of Hollywood. For the first time the Pacific Coast will have, in Apparel City, branch factories of the large eastern and midwestern manufacturers.

NEW TEEN-AGE MAGAZINE

Triangle Publications, Inc., will jump on the back-to-school bandwagon next week with the first issue of a new 15¢ monthly, Seventeen. The magazine will be edited specifically for teen-age girls

by Helen Valentine, for five years promotional director of Street & Smith's Mademoiselle—which commands readership from a somewhat older feminine group.

Paper allotment for Seventeen comes from Triangle's now discontinued movie fan magazine, Stardom, but there the resemblance ends, say its editors. Seventeen will advise high school girls on fashions (in full color), beauty, movies, food, fun, and other teen-age interests. It also expects to advise advertisers on what it claims is a \$750,000,000 annual market among the country's 6,000,000 high school girls.

Triangle, which is promoting Seventeen through newspapers, spot radio announcements, young people's magazines like Scholastic, and high school students' own publications, also publishes Click, Screen Guide, and several detective story magazines.



THIS MACHINE AGE

Elbow grease and a neat flip of the wrists were once deemed requisites for a good shoe shine. In Chicago's Union Station, rotary brushes operated by compressed air have raised the craft to a production line basis—with a consequent jump in business, and a decrease in labor costs. A 40% saving in time is reported, and the air is used to blast dirt from trouser cuffs, lint from coat lapels, but there is some head-shaking over the loss of the familiar tap-dance rhythm beat out by the polishing cloth in the hands of a skilled bootblack.

\$700⁰⁰ saved on every shipment with ELECTRIC TRUCK



Profit Margin Increased with Modern Material Handling Methods

● Almost every business that consumes raw materials can reduce handling costs—and so increase profit margins—by using electric trucks.

Take the case of the cannery which receives 10,000 ton shipments of fresh fruit delivered by highway trucks. Formerly boxes were unloaded by hand, then conveyed by gravity rollers to the storage area. There they were stacked by hand.

Now boxes are shipped in unit loads on pallets. At the cannery these are handled and stored by fork truck.

When the boxes of fruit are moved again from warehouse for canning, this method duplicates the saving. It adds up to a total of almost \$700.00 for every 10,000 ton shipment—a cost reduction of nearly 50%.

There are two plus values in this method. One is to make more efficient use of storage space. Now boxes can be

stacked 14 high instead of only 10 as they were when piled by hand. The other plus is to make the job easier for workers because the method does away with tedious box-by-box handling.

No matter what kind of raw materials you use—or what kind of products you make—you will probably discover similar savings and advantages from introducing the unit load method and electric trucks.

To keep abreast of latest developments:

FOR MANAGEMENT: "Unit Loads" Bulletin explaining a coordinating materials handling system that involves practically every industry.

FOR TRANSPORTATION SUPERVISOR: "Material Handling" Handbook containing vital information necessary to the conduct of efficient inter-department operations.

THE INDUSTRIAL TRUCK STATISTICAL ASSOCIATION
208 South La Salle Street • Chicago 4, Illinois



MANUFACTURERS OF TRUCKS: AUTOMATIC, BAKER, CREST, EASTON, ELWELL-PARKER, LEWIS-SHEPARD, M. C. RY, YALE. BATTERIES: EDISON, EXIDE, PHILCO. CHARGING EQUIPMENT: ELECTRIC PRODUCTS, HERINER.

LABOR

Machinists Break

Although overtime ban is maintained in San Francisco, union won't punish any violators. Production picks up.

For the first time since Lodge 68 of the A.F.L. International Assn. of Machinists imposed its ban on overtime work last Apr. 17, production this week in the 104 San Francisco machine shops operating under Navy supervision approached a full-time, all-out basis.

• **Union Won't Penalize**—Although the overtime ban persisted in defiance of warnings from Washington, the local

union promised its 5,000 members that they will not be penalized if they choose to work a ten-hour day and 60-hour week, instead of the eight-hour day and 48-hour week that prevailed until President Roosevelt ordered the Navy to take over.

What smoothed the path for Rear Adm. Harold G. Bowen in crumbling the union's stubborn opposition to overtime work was the authority vested in him by Economic Stabilization Director Fred M. Vinson and War Manpower Commission Chairman Paul V. McNutt to exercise drastic sanctions (box, below) against anybody who refuses to obey his orders.

• **Deferments Canceled**—Bowen lost no time in exercising the authority. This week he ordered cancellation of 49



Rear Adm. Harold G. Bowen calls for management's strict cooperation as well as labor's obedience in the bitter struggle of San Francisco machinists for freedom from overtime work.

Union Sanctions—How They Work

The Administration has a new weapon for crushing strikes—drastic penalties against workers and unions.

It took a year to bring the penalties to bear. Although authorized by executive order in August, 1943, to provide additional means of coping with John L. Lewis, president of the United Mine Workers, the penalties gathered dust on the shelf until the stubborn four-month refusal of San Francisco machinists to end a ban on overtime work forced action.

• **Seizure Didn't Work**—The old technique of seizing and operating the plants to put the men in the position of defying their government proved insufficient.

The Navy then announced that it had the approval of Economic Stabilization Director Fred M. Vinson to blacklist all employees who refuse to obey orders, to take occupational gasoline rations away, to order draft reclassifications, to take away all union privileges.

• **Secondary Penalty**—Removal of gasoline rations in such a case is only a secondary penalty since public transportation is available. Draft reclassification only affects the few able-bodied men of draft age remaining in civilian life. But blacklisting affects everyone except the union business agents. Withdrawal of union privileges hits them.

Blacklisting was set up by order of Vinson to War Manpower Com-

mission Chairman Paul V. McNutt.

• **Referral Powers Lost**—Applying the technique in the San Francisco case, Vinson specified that: (1) the union—Lodge 68 of the A.F.L. International Assn. of Machinists—was to lose its rating as an authorized WMC referral agent; (2) all employees refusing to obey valid Navy work orders were to be denied certificates of availability and referral cards to other jobs; (3) employers were to be warned not to hire blacklisted workers under penalty of having other employees taken away; (4) workers were to be blacklisted whether they were technically discharged or remained as employees, thereby getting around WMC regulations granting automatic job releases to discharged workers.

• **How Union Is Hurt**—Union privileges were withdrawn by the National War Labor Board at the request of the Navy Dept., with the approval of President Roosevelt, in accordance with the Connally-Smith act. This means that contract provisions giving the union preferential hiring rights and the right to grant clearance cards to nonunion members are withdrawn, as was a clause giving the union the right to refuse to work with nonunion members. The union is denied the right to participate in grievance settlements. It only retains its basic Wagner act right to represent the affected workers in collective bargaining.

draft deferments in the first five plants he seized. Preinduction physical examinations for the 49 were scheduled so that inductions could begin by Aug. 31.

From the employers, too, Bowen demanded full cooperation under threat of installing his own management.

• **Token Gesture**—Seizure of the first five plants was a token gesture intended to demonstrate the government's wartime power over production slackers. To avoid prosecution under the Connally-Smith War Labor Disputes Act, forbidding interference with operation of government-held facilities, the union permitted members in these shops to violate the overtime ban.

But in the other 99 shops the union maintained the prohibition until President Roosevelt ordered them seized by the Secretary of the Navy. Then the union called a special meeting, voted down a resolution to rescind the ban, but agreed instead not to punish those who choose to ignore it.

• **Pressure Move**—The overtime ban itself was merely a token when it was conceived and applied four months ago by E. F. Dillon and Harry Hook, business agents of Lodge 68. It was employed as a pressure move on the National War Labor Board to accelerate action on the union's new contracts.

NWLB didn't yield to pressure. Some weeks ago the board informed Lodge 68 that no consideration would be given to the new contract until the overtime ban was lifted. NWLB has refused to budge from that position.



Research gives TELEVISION new horizons

● **TELEVISION RAYS**—like human sight—do not "bend" far beyond the curvature of the earth. They travel in a straight line to the horizon—and from the horizon off into space. In preparing television as a service to the public, research has sought ways to extend television's program service by radio relaying from city to city.

A solution to this problem has been perfected by RCA engineers: the radio relay station—capable of picking up and automatically "bouncing" tele-

vision images from station to station. With such relays supplementing a coaxial cable, entertainment, sports and news events could be witnessed simultaneously by Americans from coast to coast.

Today, RCA's research facilities are devoted to providing the Allied fighting forces with the most efficient radio and electronic equipment available. Tomorrow, these same skills and energies will continue to serve America in developing and creating new and finer peacetime products.



RADIO CORPORATION OF AMERICA

RCA LABORATORIES • PRINCETON • NEW JERSEY

RCA
leads the way in
radio—television—
electronics



Listen to RCA's "The Music America Loves Best"—Sundays, 4:30 P.M., E.W.T., over the NBC Network ★ BUY WAR BONDS EVERY PAY DAY ★

What is a "DROP FORGING"?



DROP FORGING was originally just DROP forging—forging or working a piece of hot metal by dropping a weight on it. But steam drop hammers of today **ACCELERATE** the gravity drop adding greatly to the force of impact. The forming of the finished forging is accomplished by means of two sets of dies. The acceleration of the blow by steam or air power, and the fact that the forming of the metal is accomplished between dies, makes the term "Impact Die Forging" more accurate, but "Drop Forging" is still the more commonly used commercial term.

The great virtue of the drop forging is the strength, the resistance to shock loads and the toughness imparted by the impact of hammering. The flow of the grain structure of the metal follows the shape of the part, greatly strengthening it against high instantaneous stress, as shown in the diagrams and photo below:

TYPICAL DROP FORGINGS
BEFORE AND AFTER MACHINING



AIRPLANE PROPELLER SHAFT



AIRPLANE ENGINE CRANKSHAFT & DAMPER



AIRPLANE ENGINE MASTER & CONNECTING ROD



NO GRAIN FLOW GRAIN FLOW BROKEN BY MACHINING TRUE GRAIN FLOW



SECTION OF DROP FORGED CRANKSHAFT ETCHED TO SHOW GRAIN FLOW

Other virtues of drop forging are:

REDUCTION IN WEIGHT

Light weight combined with great strength is characteristic.

MINIMUM OF MACHINING

Less machining is necessary than with parts formed by other methods.

SAVING IN MATERIAL

There is less metal scrap than from bar stock or casting.

NO INTERNAL FLAWS

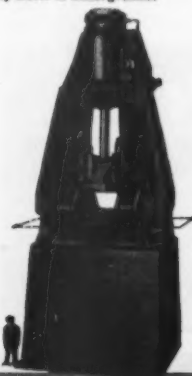
Working of metal from a solid bar eliminates possibility of internal defects.



Drop forgings produced on Chambersburg Hammers have these virtues to a superlative degree.

LARGE CHAMBERSBURG STEAM DROP HAMMER

Below is shown a hammer weighing 760 Tons. Weight of the ram is 22½ Tons. Dotted line indicates floor level. Most of anvil is underground.



CHAMBERSBURG ENGINEERING CO.

CHAMBERSBURG - PENNSYLVANIA

Panel Says No

Tribunal weighing G.M. case for NWLB rejects all wage proposals. Now it's up to the national board.

Stripped to the essentials, the 50,000 words with which the fact-finding panel of the National War Labor Board reported on the stalemate in negotiations between General Motors Corp. and the C.I.O. United Auto Workers means "No."

• **Clean Sweep**—No to the union's assorted wage demands; no to the proposal that G.M. set aside funds for post-war unemployment benefits; no to the corporation's proposal that maintenance of membership be dropped from future contracts; no to G.M.'s incentive pay proposals.

Now it's up to the national board, which heard oral arguments this week on the panel's findings, to decide the final shape of the master agreement governing the work of some 270,000 employees in 70 G.M. plants.

• **General Increase Vetoed**—To the proposal of a general wage increase to bring hourly pay into line with wartime advances in the cost of living, the panel replied that the 10¢ an hour given G.M. workers in May, 1941, and the 4¢ granted in October, 1942, amounted to the 15% permissible under the Little Steel formula.

The panel took a slap at the U.A.W.'s demand for equal pay for equal work as a device to destroy "present policy of sound and tested going rates," and it noted that the lower tribunal was being petitioned, in this instance, to "act as the instrument through which the demand is initiated into other governmental agencies of higher authority." Quite obviously the panel did not believe its frowns would end the matter.

• **Evidence Lacking**—As to guaranteed annual wages, the panel took no flat-footed position, but it mentioned the lack of evidence bearing on the effect of annual wages on production. Setting up an unemployment fund for postwar distribution was viewed by the panel as a violation of NWLB wage regulations in that the disbursement would be tantamount to retroactive pay.

Consideration of G.M.'s incentive pay proposal apparently was influenced by a belief that worker distrust in piece-rate systems is bred in the production changes incident to the war program. The panel observed that such systems operate more satisfactorily in peacetime automobile production which involves fewer changes in jobs.

Right — for those who wear the Purple Heart

Now he's on his way. The hospital train will take him to convalescence close to home and family.

This hospital on wheels is staffed and equipped to handle his every need on the journey. Throughout, it is flooded with a new kind of light—cool and glare-free fluorescent. It is easy on the eyes of wounded men. It helps doctors and nurses do their jobs.

This lighting equipment, like everything else on the hospital train, is the last word. Fixtures and lamps are manufactured by Sylvania, which means they are built to one standard—the highest anywhere known.



Right — for the blessed event

Whom the new baby looks like will be decided under fluorescent—and this softly diffused light will rest Mother's eyes.

Cool, comfortable fluorescent, with its high efficiency and accurate color control, will find many uses in the modern postwar hospital. And this new kind of light is the most economical known.

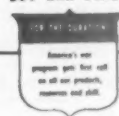
Fluorescent light that is engineered to hospital needs will be a specialty of Sylvania—pioneer in lighting, pacemaker in the fluorescent field. It will, of course, be made to Sylvania's one standard—the highest anywhere known. Sylvania Electric Products Inc., 500 Fifth Avenue, New York 18, N. Y.



SYLVANIA

ONE STANDARD—THE HIGHEST ANYWHERE KNOWN

BUY WAR BONDS



RADIO TUBES

— Sylvania was first to develop a complete line of 1.5-volt radio tubes which draw their power from a single dry cell battery. This made the camera-type portable radio set the rage of 1938. It also set in half the battery weight our boys in the military communications service have to carry today.



ELECTRONIC DEVICES

— Heart of your postwar television set will be a cathode ray tube. This electron tube is one of many types that Sylvania is even now producing. Work in the field of electronics is a definite part of Sylvania's activities.



LAMPS AND FIXTURES

Sylvania is pioneer in lighting—pacemaker in the fluorescent field. Sylvania is the leading manufacturer of fluorescent fixtures. Sylvania lamps in Sylvania fixtures give fluorescent performance at its best—light that is right.



IS YOUR FLOOR
A CHUTE-the-CHUTE?



Correct it with SPEEDI-DRI

OIL-SWEATING, greasy, slippery floors are no longer a hazard in plants which have discovered **SPEEDI-DRI**. **SPEEDI-DRI** provides no skidding and no kidding! This oil-thirsty, fire-retardant compound promptly soaks-up ingrained grease . . . without scrubbing. Simply spread **SPEEDI-DRI**, in every department, on oily areas; then sweep it up . . . and, with it, all greasy soakage. Wood, concrete, and metal floors regain their original surfaces. Aisles are brightened, cleaning-labor saved, plant morale lifted, production speeded. Join the rush of industry's top-flight maintenance-men to the use of **SPEEDI-DRI**, the original oil and grease absorbent. Write for literature and **FREE SAMPLE**—today!

SUPPLIERS: East—Refiners Lubricating Co., New York 1, New York.
Midwest & South—Waverly Petroleum Products Co., Philadelphia 6, Pa.
West Coast—Waverly Petroleum Products Co., Russ Bldg., San Francisco 4, Calif.

SPEEDI-DRI
OIL AND GREASE ABSORBENT



Weirton at Grips

NLRB revives old C.I.O. feud in charge that steel company defies court by dominating Weirton Independent Union.

Weirton Steel Co. and the C.I.O. United Steelworkers of America have squared off again for another round in their knock-down-and-drag-out fight, and all the old deep-seated bitterness has once more flared into a rash of name-calling and calculated maneuvering.

• **No Holds Barred**—Industry, labor, and the public generally have looked on for years while these two antagonists mauled one another about the ring, with no holds barred and no quarter asked. But they are so evenly matched that neither has been able to land a haymaker.

It began back in 1936, when the Steel Workers Organizing Committee, predecessor of the United Steelworkers, began organizing the traditionally open-shop steel industry (BW—Jun. 27 '36, p15). The highlight was a 17-month National Labor Relations Board hearing on the union's charges of unfair labor practices that wound up with the NLRB ordering the company to disestablish two allegedly management-dominated unions and rehire 17 workers who claimed they were dismissed for union activity. The hearing began in August, 1937 (BW—Aug. 21 '37, p15), and ended in January, 1939.

• **Drive Intensified**—Latest exchanges occurred last winter when the C.I.O. intensified its eight-year effort to bring Weirton's 12,000 employees at Weirton, W. Va., and Steubenville, Ohio, into the fold. A series of skirmishes occurred at the gates of the Weirton plant, a few heads were broken, and the governor of West Virginia finally sent in a force of state troopers to keep the boys apart. The "boys" were the organizers of the C.I.O. who were seeking to distribute handbills, and members of the Weirton Independent Union, which holds an exclusive bargaining contract for Weirton's employees, who decided to pass out a few circulars of their own (BW—Apr. 22 '44, p96).

Outcome of this was the indictment last Apr. 10 of 30 members of the C.I.O. union on misdemeanor and felony charges. All but one have posted bond pending a hearing at New Cumberland, W. Va., on Sept. 12 on a motion for a change of venue. The C.I.O. contends that its members cannot receive a fair trial in Hancock County,

WEIRTON IN REVIEW

Here is the chronology of the battle that has engaged the Weirton Steel Co. and the C.I.O. for the past eight years:

June 17, 1936—C.I.O. launches its campaign to organize the steel industry into the Steel Workers Organizing Committee.

May, 1937—S.W.O.C. files charges of unfair labor practices against Weirton Steel Co. with National Labor Relations Board.

Aug. 16, 1937—NLRB trial examiner opens hearing at New Cumberland, W. Va. Sessions later were held at Steubenville, Ohio, Pittsburgh, and Washington.

Jan. 30, 1939—Hearing ended, after 8,000,000 words of testimony which filled 40,000 pages; some 500 witnesses were examined, and 4,000 exhibits were introduced.

June 27, 1941—NLRB orders Weirton to cease discouraging membership in the S.W.O.C., to disestablish two allegedly company-dominated unions (Weirton Steel Employees Representation Plan and Weirton Steel Employees Security League), and to reinstate with back pay 17 workers found by the board to have been dismissed because of union activity.

July 8, 1941—Weirton signs an exclusive bargaining contract with the new Weirton Independent Union a week after the W.I.U. served its demands on the company.

May, 1942—NLRB asks Third U. S. Circuit Court of Appeals to enforce its order of June 27, 1941.

July 8, 1942—Weirton petitions third circuit court for stay of proceedings filed by NLRB and for appointment of a master to take additional testimony on the grounds that the trial examiner and the NLRB were biased in favor of the S.W.O.C. Both sides agreed that the company had complied with "90%" of the order, including abandonment of the two old unions.

May 18, 1943—Circuit court upholds NLRB, and orders company to cease practices in violation of the National Labor Relations Act.

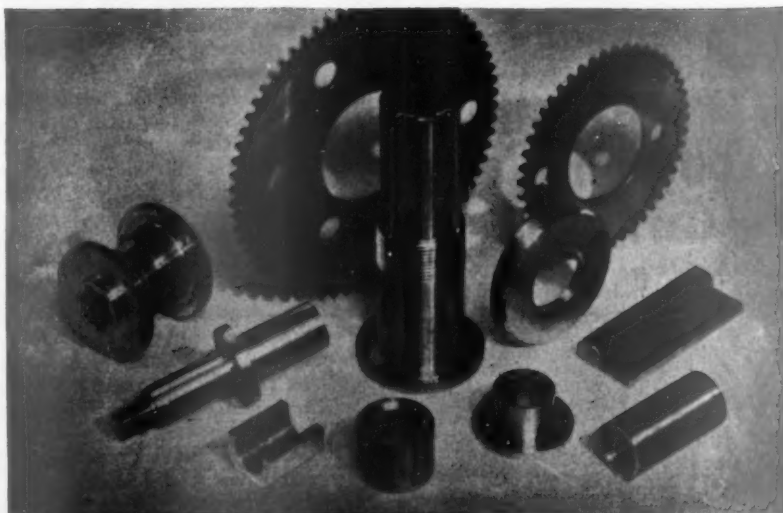
Feb. 17, 1944—C.I.O. intensifies its organizational activities; disorders occur at plant gates.

Mar. 11, 1944—More disorders.

Apr. 10, 1944—Thirty C.I.O. members indicted at New Cumberland for alleged misdemeanors and felonies arising from disorders at gates.

Apr. 24, 1944—Hearing on motion for change of venue continued until Sept. 12.

Aug. 10, 1944—NLRB asks circuit court to hold Weirton Steel Co., National Steel Corp., and the W.I.U. in contempt of court, charging that the steel company and its parent dominate the independent union.



Most leading
machine-tool builders
protect you against
failure at critical
points...

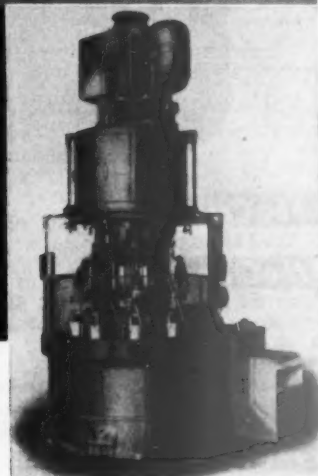
— with parts of wear-resisting
Ampco Metal

Check for this protection, when you look at the specifications of machines you buy — for you know that the name "Ampco" stands for longer life, several times that of ordinary bronzes. This remarkable alloy of the aluminum bronze class has been adopted by over 90 leading machine-tool makers — where they need exceptional strength, or resistance to wear, shock, and fatigue. Be sure you get it on your new machines — and insist that replacement parts for your older machines be made of durable Ampco. Write for catalog.

MS-3



The Metal without an Equal



Ampco Metal Parts in the Bullard Mult-Au-Matic

Bullard machines, built by The Bullard Company of Bridgeport, Connecticut, include over 60 different parts of Ampco Metal — an outstanding indication of the excellence of their product.

Ampco Metal, Inc.

Dept. BW-3 Milwaukee 4, Wis.

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Ampco Metal . . . Ampcoloy
(general industrial bronzes) . . .
Special Copperbase alloys.

Sand Castings . . . Centrifugal
Castings . . . Extruded and other
Wrought Products . . . Precision-
machined parts. Ampco-Trode
(coated aluminum bronze elec-
trodes) . . . Ampco Non-Spark-
ing Safety Tools.



the Crime! Lubricating efficiency killed by neglect!

the Clues! Formation of sludge on the cartridge. Sludge on a filter cartridge is no indication of its oil cleansing efficiency!

the Culprit! An overworked cartridge! This DeLuxe cartridge was used too long!

the Solution! DeLuxe cartridges when used in DeLuxe Filters prevent the formation of sludge and varnish by removing all contaminants from the oil BEFORE they can combine into such substances. Therefore, when the DeLuxe cartridge shows sludge, it is usually evidence that it has been used too long. The solution is to replace the cartridge before asphaltene, dirt and abrasives fill the cartridge so completely that sludge has a chance to form.

the Big Story! Actual oil cleansing which cuts engine repair and operating costs and lengthens engine life is the Big Story back of De Luxe's leadership in Fleet, Marine, Diesel and Industrial fields. Write for FREE BOOKLET.

DELUXE PRODUCTS CORP.
1425 Lake Street LaPorte, Indiana



where the indictments were returned.
• Contempt Citation—Things became relatively quiescent until this month when NLRB, in the Third U. S. Circuit Court of Appeals in Philadelphia, cited Weirton Steel, its parent concern, National Steel Corp., and the W.I.U. for contempt of a court decree of May 18, 1943, forbidding practices in violation of the National Labor Relations Act (BW—Jun. 5 '43, p89).

NLRB charged that the W.I.U. is company-dominated and that the company used violence and encouraged others to use violence to hinder organizational efforts of the C.I.O. An answer must be filed by Sept. 9, and the defendants must appear in court a month later.

• C.I.O. Influence Charged—This led to cries of "sabotage of the war effort" by the independent union and an allegation by the W.I.U. that the NLRB was under the influence of the C.I.O. which greeted this development with silence.

In retrospect, Ernest T. Weir, board chairman of National Steel and bitter foe of the C.I.O., seems to have done a good job of beating off the enemy. What the future holds is another question. The C.I.O. is putting everything it has into the drive against Weirton as a symbol that must be destroyed to maintain union prestige.

Heat on for Ships

Seven-day work-week is ordered in two Portland area shipyards to speed building of more Navy transports.

More bad news for Japan was announced last week in the Portland (Ore.) area by the U. S. Maritime Commission which ordered the Oregon Shipbuilding Corp. and the Vancouver Shipbuilding Co. on a seven-day work-week, starting Aug. 28.

• Building Transports—For the next ten Sundays approximately 60,000 workers will put in the extra time building a type of transport which is urgently needed by the Navy. Built on a Victory ship hull, these new transports have many secret features.

Because the need is urgent, the vessels rate No. 1 priority on the Navy's list, as escort aircraft carriers did last fall. In October, November, and December, 1943, the Maritime Commission put the Vancouver (Wash.) shipyards on a straight seven-day week.

• First Launching—The Oregon Shipbuilding Corp., which has a contract for 30 of the new transports, last week launched the first one built in any U. S.



AND NO WIRE PULLING

Surveyors transits are put to work at Douglas Aircraft's Los Angeles plant to lop hours off the difficult job of aligning production jigs—necessary for the interchangeability of parts in large aircraft assemblies. Formerly piano wires were stretched as vertical and horizontal guides, a method

which required from five to six hours, and became more troublesome as jigs grew more complex. As the result of a worker's suggestion, transits were employed for the task, and now the aligning takes less than 45 minutes. The wrinkle—available to all aircraft manufacturers—is reported to have saved one southern California plant \$15,000 on the cost of a single jig.

KNIGHTS



of the
ROUND TABLE



1944

Remember the stories of "The Knights of the Round Table" — those armored warriors of legend who mounted "fiery steeds" and dashed hither and yon to perform deeds of chivalry and mercy! They are sagas of service that have kindled the imagination for generations.

Today, we have other "knights of the round table" — not legendary, but real . . . powerful railroad locomotives that are rolling continuously off "round tables", speeding over heavy rails of steel to every part of America — on vital missions of service.

They are the power that is keeping tens of thousands of trains rolling day and night — for war; the

power that is delivering to ports the mountains of machines, munitions and supplies which our fighting men and our fighting Allies must have to smash on against the enemy at full invasion speed.

To its mighty array of "knights of the round table" the Norfolk and Western, within recent years, has added 146 new locomotives . . . locomotives that are among the most modern and powerful in the world . . . designed and built by N. & W. forces in N. & W. shops. The Norfolk and Western is proud of these mighty "knights" of power — for they are rolling as never before, performing a service that is helping to speed the day of Victory.

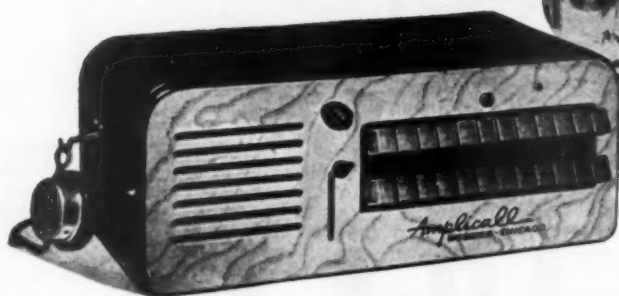
BUY MORE WAR BONDS

Norfolk and Western

RAILWAY

PRECISION TRANSPORTATION

AMPLICALL MULTIPLIES MANPOWER



AMPLICALL Paging and Two-Way Communications Systems effectively bridge the gaps when there is much work to do and too few hands to do it. **AMPLICALL's** multiple uses are making it possible for thousands of plants to effect immense savings of time and steps... *get much more done daily with the same manpower!* High quality construction, perfect tonal sound and flexible design are the factors behind the outstanding success of **AMPLICALL**. Your inquiry is invited.

Electroneering is our business

Rauland

RADIO...RADAR...SOUND...COMMUNICATIONS

Rauland employees are still investing 10% of their salaries in War Bonds
The Rauland Corporation... Chicago 41, Illinois

yard when the U. S. S. La Porte slid down the ways at Portland. The Vancouver yard will build 23.

Within a few days the Maritime Commission is scheduled to announce a seven-day week for approximately 30,000 workers at one of Henry J. Kaiser's yards at Richmond, Calif. This yard will build 22 of the transports.

• **\$1,000,000 a Week**—The lengthened work-week should have a deterring effect on the hundreds of workers who monthly desert Pacific Coast shipyards in the belief that the war is almost over.

Under the Pacific Coast master agreement, shipyard workers receive double time (about \$2.40 an hour) for Sunday work. And the double time means that the U. S. will pay out more than \$1,000,000 for wages each Sunday in the two Portland area yards alone.

• **Some Discord**—But all is not too well in relations between shipyard workers and Henry J. Kaiser on one score. A spokesman for one A.F.L. metal trades group charges that often the worker doesn't get a continuous work-week and that the day that he is off is charged against him as his premium-pay day.

NEGRO ISSUE RAISED IN L.A.

Los Angeles is watching with apprehension the germination of a race problem identical with the one which resulted in Army seizure of the Philadelphia transit lines (BW—Aug. 19'44, p108).

In the California city, the A.F.L. Amalgamated Assn. of Street, Electric Railway & Motor Coach Employees, after three meetings, finally polled a majority vote for accepting Negroes as union members.

As in Philadelphia, the President's Fair Employment Practice Committee played a dominant role. First, the FEPC ordered the Los Angeles Railway Corp. to cease and desist from refusing to accept Negroes for jobs as operators and conductors. Then the committee won over the officials of the union.

Now, although many white workers have threatened to strike in protest, the traction company expects to start a 20-day training period for Negroes on Aug. 30 and to assign trained Negroes to streetcars and buses by Oct. 1.

HIRING SYSTEM PAYS OFF

With 98% of its war veterans who have been hired since May still on the job with the highest production rate and lowest absenteeism, Northrop Aircraft, Inc., of Hawthorne, Calif., is impelled to tell how it's done.

Former servicemen are hired outside

the regular hiring system. The veteran is interviewed to disclose background, skills, aptitudes, and physical handicaps, if any. Then the job selected is fitted to the man. Assistance is offered to the veteran in reestablishing a home, finding transportation, and winding up any unfinished business with the government.

WARD REFUSES ARBITRATION

Montgomery Ward & Co. this week again refused to obey an order of the National War Labor Board. Ward notified NWLB that it rejected a directive to submit unsettled union grievance cases to Judge William L. Knous, recently appointed by the board to act as impartial arbitrator for some 40 such cases accumulated since C.I.O.'s wholesale and retail workers union contract expired last December (BW—Aug. 5 '44, p101).

At the same time, the company filed suit in federal court for a judgment to restrain Judge Knous from carrying out the NWLB assignment on the ground that he had no power to make binding awards. NWLB took



TRAY FOR PARTS

Saving time and effort on aircraft assembly lines is a new tray that prevents spillage and loss of such tiny parts as nuts, bolts, and washers. Fitted with a plastic cover which opens to only one section at a time, the compartmented container keeps parts segregated and thus saves resorting to departments much of the work formerly resulting from spills. It's used at North American Aviation, Inc.



A fighting man's "LUNCH BOX"...

Mr. Cellophane guarding the rations

VITAL INVASION RATIONS... are sealed in a two-ply Sylvania cellophane Ration Bag. Coffee, sugar, crackers, chocolate—and other items easily spoiled by moisture—arrive on the beachheads perfectly preserved, thanks to that double-walled protection of cellophane. Sylvania bags are moisture resistant, water-repellent and extremely tough.

Sylvania cellophane appears on all fighting fronts in many important roles. But from the developments Sylvania has under way today, you can look forward to many more uses for cellophane—and better cellophane—in the postwar tomorrow.

SYLVANIA CELLOPHANE

Made only by **SYLVANIA INDUSTRIAL** Corporation

Manufacturers of cellophane and other
cellulose products since 1929



• Reg. Trade Mark

General Sales Office: 122 E. 42nd St., New York 17, N.Y. ★ Works and Principal Office: Fredericksburg, Va.



*The farmer's
daughter
is crazy about
the new "hand"*

It's love at first sight when electricity goes to work down on the farm... electric refrigeration keeps milk and produce fresher, appliances make chores easier and house-work lighter, while an electric pump helps make running water possible.

Few farmers, probably, stop to realize how much this hard-working new "hand" owes to one of the oldest of metals—copper. Yet it was copper's unique combination of electrical conductivity and practical economy that made possible the distribution of low-cost power...with its numerous benefits to city and farm.

Other familiar characteristics of copper and its alloys—resistance to

corrosion, ease of working and forming—make this ageless metal adaptable to a wide range of fields, and in a number of different ways.

Chase's war experience working with copper is bound to be reflected in the new, improved products of peacetime. More than likely, you will recognize the familiar Chase trade-mark in many of the things you'll buy—yes, and make—once the war is won.

Chase Brass & Copper Co. Incorporated, Waterbury, Connecticut—Subsidiary of Kennecott Copper Corporation.

Chase
BRASS & COPPER

For your convenience Chase maintains Sales Service Offices throughout the country



jurisdiction of the grievances as disputes under the Connally-Smith act.

Board officials predict that, if friction again develops to the point of plant seizure, the showdown will come over the arbitration issue.

TEXTILE DISPUTE ENDED

With the signing this week of a contract between Botany Worsted Mills of Passaic, N. J., and C.I.O.'s Textile Workers Union, one of the country's oldest and hardest-fought labor disputes was settled.

The contract provides for a 40-hour week with overtime provisions, equal pay for men and women, and social insurance protection paid for by the company. By mutual consent of the union and the company, wage negotiations were held in abeyance pending a decision by a special panel of the National War Labor Board.

Back in 1926 Botany employees spearheaded a general textile strike in the Passaic Valley which lasted 14 months. They lost the strike, but groups of workers continued to make sporadic efforts toward unionization and last December T.W.U. won a National Labor Relations Board election among the 4,500 employees.

The company immediately protested on the grounds that Botany workers serving in the armed forces had not been given adequate opportunity to participate. While the NLRB was considering the case, Botany brought suit in the U.S. District Court for the District of Columbia to force NWLB to act immediately on applications for wage increases (BW—Mar. 4'44, p112). NWLB had refused to act while a labor dispute was in progress.

VETS RETURN TO STEEL

More than 10,000 veterans—one out of every 20 of the 214,000 steel workers who have gone into military service—are back working for their former employers in the steel industry, according to a recent survey made by the American Iron & Steel Institute.

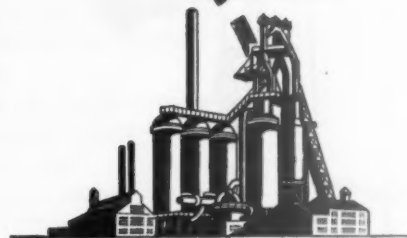
Only 600 ex-servicemen switched to other steel companies when they were seeking re-employment, and about 3,400 veterans not previously employed in steel plants are now working in the industry. The total number of steel workers who went into military service is approximately 38% of present employment.

Although less than 2% of the veterans have come back with disabilities that require special handling, a large part of the steel industry has set up special interview procedures and rehabilitation plans for servicemen.

The Travels of a Ton of Ore



Iron ore is loaded into cars built by General American, scientifically designed to do the job fast and at low cost.



From the ore, finished steel is made in a plant using General American Plate and Welded equipment.



The steel becomes part of the light, sturdy, economical Aero-coach busses built by General American.



One by-product of steel-making is benzol—chemical of a thousand industrial and home uses, carried in General American tank cars to...



...a General American tank storage terminal, where it is given fast, safe handling.

GENERAL AMERICAN TRANSPORTATION

CORPORATION

Chicago



Builders and operators of specialized railroad freight cars



Bulk liquid storage terminals



Pressure vessels and other welded equipment



Aero-coach motor coaches



Process equipment of all kinds



Precooling service for fruits and vegetables

One of a series of advertisements designed to show General American's contribution to everyday living and our part in the efficiency of American Industry during war and peace.



He called it
"Old Faithful"

AN elderly workman, who had operated a 'Load-Lifter' Hoist for many years, always referred to it by this nickname. It is a perfect description of this hoist which was designed for tough lifting jobs and long, trouble-free service.

More than brute strength is involved. Features not found in their entirety in any other hoist are responsible. Here are some of them:

1. "One-point" lubrication.
2. Roller Bearings and Ball Bearing Motor.
3. Safety upper stop; lower blocks, sure brakes.
4. Two-gear reduction drive; sealed against oil leaks; steel interchangeable suspension.

Within their capacities, 'Load-Lifters' are adaptable to practically any kind of lifting. If you have unusual conditions write to us about them. Our engineers may find an exact parallel in their experience or they will recommend just what you need.

'Load Lifter' electric hoists are built with lifting capacities of 500 lbs. to 40,000 lbs. Write to us or to any of our Distributors. For detailed information ask for Bulletin 215.



'LOAD LIFTER'
Hoists

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

Lewis Expanding

Series of NLRB strike ballots in four states reveals U.M.W.'s plan to turn on heat for mines' white-collar men.

John L. Lewis has pulled out all the stops in his drive to organize the white-collar workers of the mining industry, and it looks as though the soft coal fields are headed for a new crisis.

• **Battleground Chosen**—Central and western Pennsylvania, West Virginia, Virginia, and Kentucky have been chosen by the United Mine Workers' chieftain as the battleground for a showdown fight for recognition of his United Clerical, Technical & Supervisory Employees Union, a unit of the U.M.W.'s District 50.

The campaign erupted suddenly last week when supervisory employees voted to strike two mines of the Ford Collieries Co., at Curtisville, Pa., after waiting the allotted 30-day "cooling off" period prescribed by the Connally-Smith antistrike act. Only 39 workers were involved, but the mines were shut down and 850 others made idle because the supervisors have the job of inspecting the pits, which must be examined before each shift under mining laws. By

midweek six mines were affected and 5,000 miners were idle.

• **More Votes Scheduled**—The National Labor Relations Board announced that supervisors employed at some 75 mines in the four states will take strike votes within the next three to four weeks.

Operators expressed alarm at the trend of events, and Byron H. Canon, secretary-treasurer of the Western Pennsylvania Coal Operators' Assn., commented that the future looked none too bright.

• **Balk at Bosses**—The operators have refused to recognize the union on the contention that bosses cannot belong to the same organization as the men under them. They cite the NLRB's Maryland Drydock decision (BW—May 15 '43, p8), which held that supervisory employees do not constitute appropriate collective bargaining units.

A decision by NLRB last June dismissed the union's petition for the right to represent technical and clerical employees at eight mines of the Rochester & Pittsburgh Coal Co., Indiana, Pa., three of whose operations were affected by the strike votes last week. Supervisory employees were specifically excluded by the union in this case, but the board held that the supervisors exercised a strong influence in union affairs (BW—Jul. 8 '44, p103).

Supervisory workers are not covered by existing U.M.W. contracts.



FOR CHINESE ONLY

In a newly opened office on Mulberry St. in New York's Chinatown, George R. Gibson, Bendix Aviation plant personnel manager, interviews Fong Shing-Chong, applicant for a job. Main purpose of the recruiting drive is to relieve the tight manpower situation, but Bendix—having hired Chi-

nese previously—is anxious to get more for precision instrument assembly. Some of the recruits will work as interpreters for groups of Chinese nationals now at Bendix to learn American manufacturing methods. After the war the technical skills of both—nationals and Chinese-Americans—may prove vital factors in China's plans for industrialization.

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK
AUGUST 26, 1944



Don't be confused by the welter of election-year debate into believing that the Washington peace conference which convened on Aug. 21 is, on the one hand, doomed to failure, or is, on the other, likely to produce any radical world security program.

Basic principles were actually drawn up last year at Cairo and Teheran, and Secretary of State Cordell Hull has kept a bipartisan senatorial committee fully informed about all plans.

The technicians conferring in Washington this week are merely attempting to translate these principles into a working agreement which can be offered to all United Nations governments for their approval.

Cantankerous details which will have to be ironed out before the new League of United Nations can begin full-scale operations will be avoided until after the November elections.

Both Russia and Britain realize that postwar plans have become a major election issue in the U. S. and so are moving cautiously.

Neither will overlook the smallest suggestion from Secretary Hull for fear of upsetting the Administration from which each has its only postwar U. S. commitments—however tenuous they may be.

But neither will either of these governments do anything directly to antagonize the Republicans, in case they are in control after November.

China will not enter the picture until the third week of the conference when Russia will withdraw while security measures directly affecting Japan (with which Moscow is not at war) will be discussed.

Actually, you should not expect China to play an active role in maintaining postwar world security until (1) its own government is stabilized, and (2) a vast new program of transport and industrial development is carried out with the assistance of the three other members of the Big Four.

Foreign trade issues will be kept under cover until after the election, but if you are on your toes, you won't wait until then to appraise the effect on your business of some startling new developments in this field.

Despite rigid trading controls which still have not been removed, large foreign orders for equipment are already being placed in this country.

Brazil is negotiating in this market for textile machinery, railroad equipment, and trucks (BW—Jun.3'44,p112). Peru is shopping for chemical plant and steel mill supplies (BW—Aug.5'44,p112). And Mexico has been granted special priorities on 15 diesel locomotives as a first order to meet the country's desperate transportation crisis (BW—Aug.5'44,p112).

Bigger potential business is now in the offing with a newly enlarged French purchasing commission which is planning to place an estimated \$2,000,000,000 of orders here on a "bulk purchase" basis until France is completely liberated, private business is unscrambled from the Nazi influence, and blocked French funds are released.

You can expect foreign trade in most liberated areas to remain a government monopoly during a transition period which almost certainly will last longer than a year.

Don't overlook the fact that centralized buying agencies are now maintained in Washington by Britain, China, France, India, Mexico, Australia, New Zealand, South Africa, The Netherlands, Netherlands East Indies, and

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK
AUGUST 26, 1944

Czechoslovakia, in addition to the long-established Russian government trade monopoly.

Equally drastic changes can be expected in the postwar flow of foreign trade.

Look for imports of silk and natural rubber to be slashed to a fraction of prewar levels. The same will be true of fertilizer and vegetable oil imports, though for these two the reduction may be considerably less drastic.

On the other hand, you should not be surprised if this country soon begins to boost its imports of copper, lead, and zinc—and, eventually, of high-grade iron ore.

Gear your business to postwar imports of at least \$5,500,000,000 (compared with a prewar average of barely \$3,000,000,000).

Also, if nonpartisan advice from this country's leading economists is followed, tariffs will be reduced on such items as sugar, fresh vegetables (in off seasons), eggs, butter, cheese, meat, wool, and copper, most of which are now protected by tariffs of more than 50%.

While government technicians estimate that postwar exports will amount to at least \$7,000,000,000 by 1948 (when business is expected to be back in normal channels), don't expect your share to be proportionately upped if you are in the luxury trades.

Even with dwindling government controls (priorities, shipping, foreign exchange), biggest export gains are almost sure to be in the fields of machinery, farm implements, trucks, locomotives, and roadbuilding, construction, and mining equipment.

Patterns of controlled buying—set originally by Russia and now followed, though less rigidly, by such countries as Brazil and Mexico—will steer orders for heavy equipment to this country where they can be filled most promptly and at the lowest prices.

Biggest immediate export markets after the war will almost certainly be Britain, western Europe, and Canada. Russia can be included if adequate credits—private or governmental—are provided (BW—Apr. 15'44, p111).

Capable of the greatest expansion if properly cultivated are Latin America, China, and India.

Incidentally, it should surprise no one if the new League of United Nations decides to maintain for some time wartime blacklists in newly liberated areas and in neutral countries.

Newest proposal is that these be replaced in countries like France by a "white" list of companies as soon as they are completely cleared of all ties with the Axis or with profascist powers.

Despite this threat and Washington's move last week to stop all gold shipments from this country to Argentina (BW—Aug. 19'44, p5), the Buenos Aires government is boldly continuing its profascist program with full confidence that the pressure on London from the local British community, the size of Britain's investments in Argentina, and London's wartime dependence on Argentine food supplies will prevent the application of sanctions.

Unless Washington forces a showdown soon, the U. S. will lose face in the Argentine because, so far, this country has talked big but done next to nothing to back up its threats.

Argentina on Spot

Will its policy of economic isolation yield to sanctions, thus solidification of Western hemisphere for postwar tasks?

For a decade at least, Argentina's commercial policies have been directed toward preparing the nation for such an eventuality as economic isolation—such as threatened in the early thirties, and such as has been the case for the past five years.

● **Swung Into Action**—Faced with an unfavorable exchange position in the 1928-1932 period, when export trade hit bottom, Argentina swung into action. Gold exports were banned. Europe had begun its drive for agrarian self-sufficiency with peculiarly dire effects upon agrarian Argentina. In 1933 the Roca-Runciman trade treaty (with Great Britain) started the pendulum on its return swing.

Argentina adopted the slogan, "Buy from those who buy from us," and within the next six years signed 17 barter and compensating trade agreements. The government was virtually in the foreign trade business, and a plan of public works, restricted imports, and protection and encouragement of home industry was launched.

Although Argentina lacks a primary steel industry and relies heavily on semi-manufactured imports for its manufacturing industry, its fabricating facilities are varied and have been able to weather the war years almost with ease.

● **Farm Income**—Farmers, who are one-fifth of Argentina's population, account for more than their share of the country's total national income and, through export of the bulk of their

Argentina may be about to pay a high price for its political indiscretions of the past five years.

It remains to be seen whether economic sanctions rigorously imposed by the United States and Great Britain—perhaps by some Latin-American nations—will bring the Argentine to its knees, topple the government of Gen. Justo Farrell, and strengthen the hemisphere bloc for the difficult economic and political tasks ahead.

Nothing in the Argentine economic picture is a parallel for the weakness of a revolution-born Farrell government. Everything in the nation's economic history casts light upon the causes of present delinquency, and upon the beginnings of its profascist leaders.

● **European Ties**—Historically, Argentina has been oriented toward Europe. Its population is predominantly (95%) of European stock (unlike all other Latin-American populations). Between 70% and 80% of Argentina's import and export trade before the war was with Europe, chiefly Great Britain. Germany was second; the U. S. third.

LATIN AMERICA VI

In this—the sixth in a series of reports interpreting wartime developments in Latin America that will affect postwar American trade—Business Week surveys the Argentine economy, the changes which have occurred during the war, and their implications for the future.

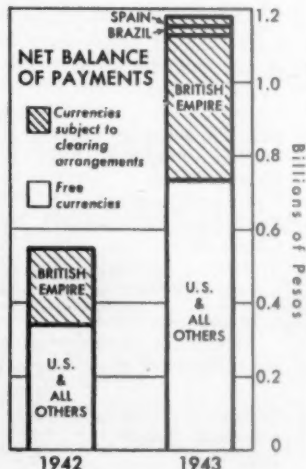
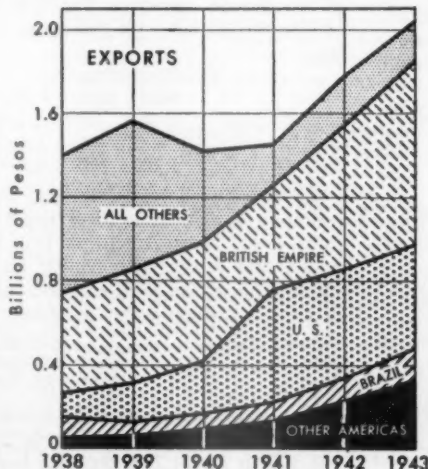
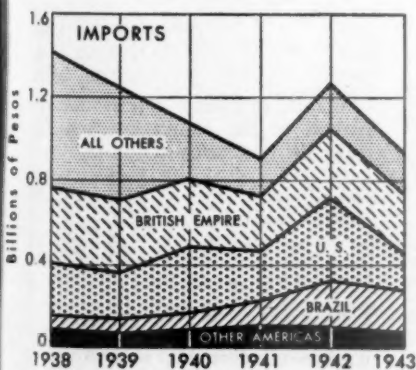
Previous reports have dealt with U. S.-Latin-American trade (BW—Apr. 8'44, p113), changes during the past five years in hemisphere industry, mining, agriculture, and in intra-American trade (BW—May 20'44, p22), Mexico (Jun. 10'44, p109), Chile (BW—Jun. 24'44, p113), and Venezuela (BW—Jul. 8'44, p113).

grain and livestock production, normally bring in more than 90% of the country's foreign exchange. On the other hand, almost half the population, working in industry at low productivity, normally devotes its efforts entirely to supplying domestic needs which must be supplemented by imports of manufactures.

Between 1939 and 1943 the value of Argentine crop and livestock production advanced 10%, but the value of manufacturing output rose 60%. Taking the value of output minus production ex-

WAR EXPORTS BOOST ARGENTINE EXCHANGE BALANCE

Declining imports and soaring exports provide Argentina with postwar buying power. Not all of it dollars.



The differential between Argentine imports and exports has given a half-billion-dollar fillip to that country's gold and foreign exchange holdings. But, as the foreign exchange picture

for 1942 and 1943 shows (above right), dollars have only a healthy, not a predominant, edge on sterling and other blocked currencies in this wartime accumulation. Naturally, the

British Empire and the United States took an increasing slice of Argentine war exports, but the biggest rise was in trade with other hemisphere countries—trebled during the war.

penses, farm and pastoral production in 1943 fell behind industrial output for the first time.

• **Meat, Livestock Firm**—During the war, export markets for meat and livestock have remained open, while outlets for Argentina's huge cereal shipments have shrunk by 70%. However, price increases averaging around 75% have lifted the total agricultural yield of

foreign exchange by 13% since 1939. Industrial production has expanded 20% to 25% during the war. But imports of metals manufactures and of fuels, which accounted for almost half of the value of total imports before the war, have shrunk 80% to 90%, and the cost of what little has been obtainable has soared.

Industrial exports have expanded ten-

fold (in value); the price rise has been about 75%, but even after this huge rise in volume, industrial exports constitute only 5% of Argentina's production in this category.

• **Billion in Gold**—Dollarwise, as a result of these factors, Argentine exports expanded 50% between 1938 and 1943 and imports fell by one-third. Indeed in five years, total exports have exceeded

Argentine Exports Grow, Imports Decline

Argentina is the second largest Latin-American republic. Its population of 13,709,000 (1943 est.) is 95% of European extraction. Its standard of living is the highest south of the Rio Grande.

An occupational breakdown of Argentina's working population (1938) shows it to be closely parallel with that of the United States:

Industries	46.7%
Farming	18.9%
Commerce	13.5%
Transportation	2.9%
Miscellaneous	18.0%

During the past two decades Argentina's agricultural population has declined, while the importance of farm products in the nation's export trade has grown rapidly. Today urban dwellers constitute 80% of the total population.

MANUFACTURING

Rapid expansion of manufacturing industries has occurred in the face of declining imports of raw materials.

Indexes of employment in some of the chief lines reflect this growth (1937=100):

	1939	1942	1944*
Food products.....	104	128	140
Machinery, vehicles..	106	103	104
Metal products	108	119	110
Construction materials	114	134	142
Leather manufacturing	117	128	133
Chemicals	119	136	143
Textiles	107	129	140
General Index	108	124	128

* Average, Jan.-Apr.

Meanwhile, manufacturing exports (in millions of pesos) skyrocketed:

	1939	1943
Textiles	3.1	195.7
Chemicals, drugs	1.0	48.4
Iron, steel	0.3	12.4
Pottery, glass	0.2	10.3
Miscellaneous	40.9	157.5
Total	45.5	424.3

AGRICULTURE

Active government intervention—forced sale of wheat for feed, and

compulsory milling of old wheat—has improved the carryover position. By the end of this year only about 7,000,000 tons of this year's crop will be available for 1945 use. Production in recent years has been (in millions of tons):

1939-42 (aver.)	6.7
1942-43	6.4
1943-44 (est.)	7.1

Cotton cultivation is at new high levels. Recent production has been (in tons):

1930-34	41,000
1940-41	50,300
1941-42	80,900
1942-43	107,000
1943-44	114,000

Tobacco production has risen (in tons):

1933-43 (aver.)	16,865
1942-43	16,440
1943-44	18,630

During the past few years, oversupply and an urgent need for fuel have resulted in the burning of part of the linseed carryover. Production of oilseeds has been (in thousands of tons):

	Sunflower Seed	Pea-nuts	Linseed
1938-43 (aver.) ..	454	73	1,414
1942-43	337	96	1,525
1943-44 (est.) ..	1,200	190	1,695

The serious drought in 1943 resulted in a decline in beef exports from 1942. Most Argentine beef is boned and frozen for export; converted to conform with earlier bone-in figures, exports were (in tons):

1936-38 (aver.)	629,000
1942	707,000
1943	601,000

Hog slaughtering in 1943 totaled 3,094,239 head, compared with 2,151,379 in 1942. The previous high was 1,350,000 in 1937.

Exports of dairy products, chiefly to Great Britain, rose in 1943. In metric tons, these exports were:

	1942	1943
Butter	14,400	16,227
Cheese	8,624	13,392
Casein	15,855	24,624

MINING

The loss of some important export markets in 1943 resulted in a decline in mining. Recent annual production, in metric tons, has been:

	1941	1942	1943 (est.)
Sulphur	373	2,182	16,000
Bismuth concentrates ...	8	40	37
Metallic lead ..	18,021	20,760	16,000
Mica	420	525	423
Tantalite	2,073
Metallic tin ..	780	720	561
Tungsten concentrates ...	1,564	1,923	*
Zinc concentrates	66,016	56,642	37,185

* Unavailable.

Petroleum production, on the other hand, rose in 1943 to 24,900,000 bbl., compared with 23,700,000 bbl. in 1942, and a 1936-40 average of 19,580,000 bbl.

POWER, TRANSPORT

At the end of 1942 there were 977 power plants in Argentina, producing 2,773,000,000 kwh. of electric energy. Consumption of power has risen sharply:

1938	1,754,000,000 kwh.
1942	2,136,000,000 kwh.
1943	2,257,000,000 kwh.

Serious shortages forced radical changes in the source of fuel for power (in thousands of tons):

	1941	1942
Fuel oil, gas	524	325
Coal and coke	416	255
Firewood, charcoal....	46	211
Maize (corn)	1,169

Four-fifths of Argentina's railroad network is foreign-owned.

Argentina's merchant fleet was insignificant before the war. Acquisition of interned vessels, and purchases from neutrals, have formed the basis of the new State Merchant Fleet. At the close of 1943 this numbered 31 vessels of 205,556 deadweight tons. From Spain, Argentina will obtain two new merchant ships, one warship.

ports by around \$500,000,000. This, diminished by repayment of foreign debts, but supplemented by inflow of foreign capital, has nearly doubled Argentina's foreign exchange and gold holdings to over \$1,000,000,000 available (1) for postwar purchases of manufactured products, (2) as liquid guarantee against future foreign investments in Argentina, and (3) as capital for investment by Argentina in neighboring countries.

According to Argentina's Central Bank, holdings of gold and foreign exchange amounted to \$940,000,000 at the end of 1943.

The bulk of this sum (75%) is in the form of gold held at home or abroad. About 19% is gold-guaranteed British blocked sterling, and 6% is U. S. dollar currency. The sterling holdings are £48,000,000 (about \$172,000,000) of which £1,340,000 (about \$5,400,000) was acquired through a deal with Paraguay.

Supplying Britain—During the past few years Argentina has continued to play an important role as a supplier of Great Britain and parts of the Empire, and through Great Britain, a supplier of recipients of U. S. lend-lease aid. Argentina gets U. S. dollars in this triangular deal.) At the same time, trade with other Latin-American countries has soared.

In 1938, 34% of Argentine exports went to the British Empire (chart, page 3); in 1943, the share was 42%. Latin America took 11% of Argentine exports in 1938, 24% in 1943. Valuewise, the increase was about 360%.

Most spectacular, however, was the increase in Argentine exports to the Union of South Africa, from a few million pesos in 1938 to 158,000,000 pesos in 1943. Of all the wartime gains, this is the least likely to last. South Africa is a traditional British sphere forced into trade with the Argentine by the war. Argentina took advantage of this, boosted prices to the limit, passed off that South Africa considered to be inferior goods.

In U. S. Market—Cut off from both European and Asiatic suppliers, Argentina turned to nearer sources. At first, Buenos Aires tried to stay out of the U. S. market. Then pressure forced the signing of the 1941 reciprocal trade agreement, and Argentina shipped heavily in the U. S. for goods bound on to get scarce. U. S. exports to Argentina hit a peak in 1942. (Then, with the political upset, Washington started in mid-1943 to make U. S. goods hard to get.)

By 1943, after a steady climb, Brazil had usurped first place from Great Britain supplying 21% of Argentine imports. The United States held third

Economical...for Small Plants ... as well as Large Ones



Ⓜ BUSDUCT System installed in a small laundry.

Many small ones have required a hundred feet, or even less, and there are many "in-between." In every case the installation of this convenient and flexible method of Ⓜ BUSDUCT distribution for electric light, heat and power has been accomplished at surprisingly low cost.

Both Feeder and Plug-in Ⓜ BUSDUCT may be taken down and moved to new locations without appreciable loss of material. Standard sections, with pull boxes, elbows, end closures, tees and crosses, make it possible to fit any desired arrangement, so that change in location of machines is rendered

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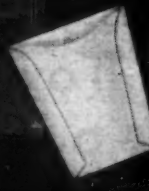
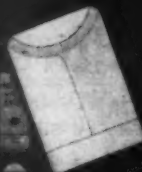
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rank as a supplier in 1943. During the first five months of this year, Brazil boosted its share to 31%, while U.S. exports to Argentina continued to decline, comprising only 16% of Argentine imports.

● **Iron From Brazil**—Imports from other Latin-American countries—such imports as lumber, lead ore, and sand for construction—were expanded. Imports of iron ingots from neighbors were nonexistent in 1937, but in 1941, 99% came from other Latin-American countries, chiefly Brazil. (Spain supplied 30,000 tons of iron products last year, will boost this to 60,000 tons this year.)

Chile provided increasing quantities of copper and products, pig iron, sulphur, hemp, dyestuffs, nitrates, chemicals and pharmaceuticals, lumber, and coal.

Mexico sent zinc sheets, refined zinc, graphite, mercury, and calcium carbide to Argentina.

Bolivia supplied 250 tons of rubber annually, and increasing quantities of petroleum and sulphur.

● **New Customs Union**—Argentina is determined to maintain its trade with its nearest neighbors and to extend the market for its products far beyond. For such products as cheese, wines, drugs, and some textiles, Argentina has gained a reputation likely to assure retention of some important war-created markets. To implement trade in its immediate economic sphere, Argentina is working on the formation of a customs union to include Chile, Bolivia, Uruguay, Paraguay, and Brazil (BW—Dec. 25 '43, p. 66).

The Argentine Industrial Union is actively engaged in studies of methods of improving Argentine products and their competitive position in foreign markets. It also plans a mining laboratory and training center at home. Several years ago, Argentina secured the services of the Armour Institute for a study of product standards and of means of improving production techniques. The government has established factory training schools for the textile industry. Technical skill in industry has been enhanced recently by the influx of refugees from Europe who have entered chemical and pharmaceutical, textile, and metallurgical industries.

● **Busy on Munitions**—At the moment there is evidence of a systematic government effort to turn all possible manufacturing facilities to the production of armaments and munitions. Dozens of factories are producing parts for tanks (BW—Jul. 1 '44, p. 114), and engines are being obtained from abroad (BW—Jul. 29 '44, p. 112).

This is both a symptom and a cause of Argentina's current noncooperative attitude in United Nations affairs. As long as Buenos Aires feels able to stand

on its own against the Allies, it is free to consolidate this position and to pursue ways of meeting reprisals.

● **Help for Europe?**—In the near future by virtue of its position as one of the world's great food exporters, Argentina may necessarily be called upon to aid in the rehabilitation of Europe. It is by no means clear that Europe's needs can be met without Argentine aid, but that other United Nations—principally the U.S.—will make the sacrifice necessary to replace Argentina as a supplier of food.

Thus, Argentina's future position, tradewise, is encouraging. Demand must exist for the bulk of Argentina's traditional exports. In the transition period when absolute shortages of civil goods and light manufactures persist, Argentina may continue as a supplier to other Latin-American countries. How much of this trade will outlast the emergency period cannot be guessed, but Argentina plans the elimination of some uneconomic facilities and the prohibition of others deemed necessary to national security.

CANADA

Bonus Backfires

Ontario premier's feud with Mackenzie King and his "baby bonus" leads to calling off postwar planning parley.

OTTAWA—When Ontario's Premier George Drew served notice on the rest of Canada that he would do his best to prevent Prime Minister Mackenzie King's \$200,000,000 "baby bonus" law from coming into operation, he cut the pins from under the Dominion's postwar planning machine.

● **His Real Aim**—Right away, King posted notice that a scheduled Dominion-provincial conference, which was to have rounded out Canada's postwar plans, would not be held until after the federal election because Drew's vendetta against the prime minister and his bonus law would be sure to wreck the conference.

Drew's move was political rather than economic. To upset the baby bonus law he must bring about the defeat of King as prime minister. And this is his real aim. To achieve it he is mobilizing Ontario's indignation over what it calls Quebec's isolationism, and asserting that Ontario, richest of the provinces, would pay nearly half of the annual cost

the baby bonus while Quebec, with many large families, would benefit disproportionately through receiving nearly one-third of the bonus outlay.

May Lose Liberals—Drew, a Progressive Conservative, heads a minority government in Ontario.

It has held office for a year by support of Liberals against the up-and-coming Cooperative Commonwealth Federation opposition. But Liberals may not continue to support him after his challenge to King on the bonus law.

Unity Showdown—Canadians see in Drew's move the forcing of a showdown on national unity in the coming federal election. King avoided conscription for overseas military service in an attempt to avert an open clash with French-Canadian Quebec. Drew contends King's policy toward Quebec has promoted disunity, and that Quebec must be taught it can't dictate national policy. Drew is nibbling at one of Canada's most dangerous issues. Even with King's conscription compromise, Quebec's attitude toward the war continues to evidence itself in repeated disturbances between civilians and the military in Quebec cities. Even if reports of this friction are kept from the public, Drew must be aware of its seriousness.

Although the dominion-provincial conference has been postponed, preparations for it had been carried far enough to provide a long-term projection of Canada's postwar economic plan.

Full Employment—The agenda establishes full employment and high national income as the "foundation stone" of postwar policy.

It proposes to build a program of encouragement of private enterprise (agriculture, manufacturing, and construction) and public improvements on this foundation.

Industry would be encouraged by (1) tax and tariff reform, (2) improved production and distribution, (3) greater standardization, (4) cheap credit and subsidies, (5) checks on inflation, (6) promotion of foreign trade through export credits, floor prices, government buying, and government underwriting of long-term contracts, and (7) monetary policy, income subsidies (baby bonuses), and social service programs.

Obstacles Cited—The agenda cites as obstacles to be avoided in the postwar plan (1) discriminating and discouraging taxation, (2) fear of government competition, and (3) domination of markets by cartels and monopolies.

Public improvements would include transportation developments, conservation and development of natural resources, exploitation of tourist attractions, social and welfare amenities, such as hospitals, parks, and recreation centers, rural electrification, and sanitation.

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Business Week—August 26, 1944

FRANK ADAM ELECTRIC CO. 115	HOTEL MAYFAIR 118
Agency—Major Adv. Agency	Agency—Gardner Advertising Co.
AIR EXPRESS, DIV. OF RAILWAY EX- PRESS AGENCY, INC. 83	HOTELS STATLER CO., INC. 69
Agency—Erwin, Wasey & Co.	Agency—Young & Rubicam, Inc.
ALCOA STEAMSHIP CO., INC. 92	INDUSTRIAL TRUCK STATISTICAL ASSN. 95
Agency—Fuller & Smith & Ross Inc.	Agency—Heincke, Ellis, Younggreen & Finn, Inc.
ALLEGHENY LUDLUM STEEL CO. 30	INGERSOLL-RAND CO. 50
Agency—Walker & Downing	IRON FIREMAN MANUFACTURING CO. 8
ALLIS-CHALMERS MANUFACTURING CO. 60, 61	Agency—Joseph R. Gerber Co.
Agency—Compton Advertising, Inc.	LEAR AVIA, INC. 109
ALUMINUM COMPANY OF AMERICA 11	Agency—Arthur Kudner, Inc.
Agency—Fuller & Smith & Ross Inc.	LINDSAY & LINDSAY 54
AMERICAN BRASS CO. 3rd Cover	Agency—The Fensholt Co.
Agency—Ivey & Ellington, Inc.	LYON METAL PRODUCTS, INC. 79
AMERICAN LUMBER & TREATING CO. 24	Agency—Evans Associates, Inc.
Agency—Fuller & Smith & Ross Inc.	MAHL CO. 118
AMERICAN OPTICAL CO. 94	MANNING, MAXWELL AND MOORE, INC. 108
AMERICAN STERILIZER CO. 38	Agency—Briggs & Varley, Inc.
Agency—G. M. Basford Co.	MARCHANT CALCULATING MACHINE CO. 41
AMERICAN SURETY CO. 47	Agency—Brisacher, Van Norden & Staff
Agency—Albott, Frank-Guenther Law, Inc.	THE MARINE MIDLAND TRUST CO. OF NEW YORK 8
AMERICAN TRUST CO. 86	Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency—Leon J. Viret, Agency	MARSH STENCIL MACHINE CO. 32
AMERICAN VISCOSUE CORP. 89	Agency—Krupnick & Assoc.
Agency—J. M. Mathes, Inc.	MCGRAW-HILL BOOK CO., INC. 115
AMPSCO METAL, INC. 101	McQUAY-NORRIS MFG. CO. 57
Agency—Hoffman & York	Agency—D'Arcy Adv. Co., Inc.
ASSOCIATION OF PREFORMED WIRE ROPE MANUFACTURERS 49	METALFUSION CORP. OF AMERICA DIV. OF COOK ELECTRIC CO. 64
Agency—Heincke, Ellis, Younggreen & Finn, Inc.	Agency—MacFarland, Averyard & Co.
BW SUPERCHARGERS, INC. 26	NATIONAL CITY BANK OF CLEVELAND, INC. 31
Agency—Klan-Van Pletersom-Dunlap Assoc., Inc.	Agency—Brooks, Smith, French & DeRance
BANKERS TRUST CO. 1	NATIONAL GYPSUM CO. 37
Agency—Cowan & Dangler, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
BAUSCH & LOMB OPTICAL CO. 77	NEW DEPARTURE DIV. OF GENERAL MOTORS CORP. 80
Agency—Charles L. Burnill Co.	Agency—J. M. Hickerson Inc.
BELL SOUND SYSTEMS, INC. 67	NORFOLK & WESTERN RAILWAY CO. 103
Agency—Whelan-Kight and Gainer, Inc.	Agency—Hough & Co.
BIRDSBORO STEEL FOUNDRY & MA- CHINE CO. 84	THE OHIO CRANKSHAFT CO. 53
Agency—Baumont, Heller & Sperling, Inc.	Agency—The Griswold-Eshleman Co.
BOHN ALUMINUM AND BRASS CO. 45	OHIO TOOL CO. 40
Agency—Stimmer-Keller, Inc.	Agency—Moermann, Inc.
CARRIER CORP. 12	OWENS-ILLINOIS GLASS CO. 47
Agency—Charles Dallas Beach Co.	Agency—Brooks, Smith, French & DeRance, Inc.
CELANESE CELLULOID CORP. 72	OZALID PRODUCTS DIV. GENERAL ANI- LINE & FILM CORP. 35
Agency—Ivey & Ellington, Inc.	Agency—Young & Rubicam, Inc.
CENTURY ELECTRIC CO. 46	THE PFAUDLER CO. 48
Agency—Oakleigh R. French & Assoc.	Agency—Charles L. Burnill & Co.
CHAMBERSBURG ENGINEERING CO. 98	PORTLAND CEMENT ASSOCIATION Agency—Riche, Williams, Cleary, Inc.
Agency—William G. Myers Adv. Agency	RADIO CORPORATION OF AMERICA 97
CHASE BRASS & COPPER CO. 106	Agency—J. Walter Thompson Co.
Agency—Newell-Emmett Co.	RCA COMMERCIAL ENGINEERING SEC- TION 43
THE COLSON CORP. 39	Agency—Kempson & Eckhardt, Inc.
Agency—Moermann, Inc.	THE RAULAND CORP. 104
COMMERCIAL CREDIT CO. 66	Agency—Ror. D. Zell & Assoc.
Agency—Yankee Doodle & Co., Inc.	REFINERS LUBRICATING CO. 100
CONTINENTAL MOTORS CORP. 78	Agency—Gray & Rogers
Agency—Wallace-Lindeman, Inc.	RELIANCE ELECTRIC & ENGINEERING CO. 58
COSMOPOLITAN 33	Agency—Meldrum and Newsmith, Inc.
Agency—Pedlar, Ryan & Lusk, Inc.	ROCHESTER ROPES, INC. 29
DELUXE PRODUCTS CORP. 102	Agency—L. E. McGivern & Co., Inc.
Agency—Van Hook-Bauman, Inc.	JOHN A. ROEBLING'S SONS CO. 70
DESIGNERS FOR INDUSTRY, INC. 86	Agency—Richard & Co., Inc.
Agency—The Bayless-Kerr Co.	ROHM & HAAS CO. 82
DICTAPHONE CORP. 85	Agency—Newell-Emmett Co.
Agency—McCann-Erickson, Inc.	RUSSELL BURDALL & WARD NUT & BOLT CO. 87
DIEBOLD, INC. 75	Agency—James Thomas Chiroux Co.
Agency—Sweeney & James Co.	JOS. T. RYERSON & SON, INC. 23
DISTILLATION PRODUCTS, INC. 76	Agency—Aubrey, Moore & Wallace, Inc.
Agency—Knot Reeves Advertising, Inc.	SEATTLE TIMES 110
DOW CHEMICAL CO. 81	Agency—MacWilkins, Cole & Weber
Agency—MacManus, John & Adams, Inc.	SHELL OIL CO. 6
DUMONT, ALLEN B. LABORATORIES, INC. 65	Agency—J. Walter Thompson Co.
Agency—Buchanan & Co., Inc.	SIMONDS SAW & STEEL CO. 54
E. I. du PONT de Nemours & Co. 25	Agency—Suthe land-Abbott
Agency—Batten, Barton, Durstine & Osborn, Inc.	THE STANDARD REGISTER CO. 63
DUREZ PLASTICS & CHEMICALS, INC. 55	Agency—Stockton, West, Burkhardt, Inc.
Agency—Addison Vars, Inc.	STATE OF NORTH CAROLINA 59
EMPLOYERS MUTUAL LIABILITY INS. CO. OF WISC. 32	Agency—Eastman, Scott & Co., Inc.
Agency—Daniel H. Storey	SUPERIOR STEEL CORP. 91
ERIE RESISTOR CORP. 42	Agency—Walker & Downing
Agency—W. S. Hill Co., Inc.	SYLVANIA ELECTRIC PRODUCTS, INC. 99
FIDELITY MACHINE CO. 36	Agency—Arthur Kudner, Inc.
Agency—The Roland G. E. Ullman Organization	SYLVANIA INDUSTRIAL CORP. 105
FINNELL SYSTEM, INC. 34	Agency—J. M. Mathes, Inc.
Agency—Johnson, Read & Co.	THE TEXAS CO. 27
GEARE-MARTON, INC. 4	Agency—Newell-Emmett Co.
Agency—Geare-Marton, Inc.	TIMBER STRUCTURES, INC. 119
GENERAL AMERICAN TRANSPORTATION CORP. 107	Agency—Botsford, Constantine & Gordin
Agency—Fitzgerald Adv. Agency	UNION CARBIDE AND CARBON CORP. 2nd Cover
GENERAL ELECTRIC CO. 14	Agency—J. M. Mathes, Inc.
Agency—Ruter & Davies, Inc.	U. S. ENVELOPE CO. 116
GLOBE HOIST CO. 118	Agency—Wm. B. Remington, Inc.
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GOODYEAR TIRE & RUBBER CO., INC. 4th Cover	Agency—Newell-Emmett Co.
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HARDWARE MUTUAL CASUALTY CO. 51	Agency—Fuller & Smith & Ross Inc.
Agency—Roth, Williams & Cleary, Inc.	WILKENING MFG. CO. 68
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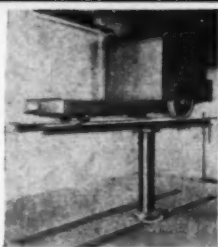


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THE MARKETS

(FINANCE SECTION—PAGE 62)

Unlike the closing days of last week when a sudden burst of buying enthusiasm, accompanied by materially higher trading volumes, sent stock price averages almost within striking distance of their July peaks, this week saw investors and market traders alike revealing increasing signs of timidity.

• **Sharp Decline**—On Tuesday, stocks generally suffered their worst setback in over two weeks. That day 573 of the 883 different issues changing hands on the New York Stock Exchange slid off to lower levels, with only 128 showing advances, and by the middle of this week a good part of the gains registered a few days previously had vanished.

The losses seen of late haven't been confined to the more speculative groups. Larger than fractional daily declines have been noticeable in a number of pivotal and high-price issues, particularly in the case of "war stocks" such as the steel and heavy industry shares.

• **Bonds Drop, Too**—This week's weakness in stocks was quickly reflected in the bond market, and in that trading arena fair-size declines have been chalked up lately by quite a few of the second-grade interest-paying and defaulted rail issues.

Trading volumes accompanying the decline have been contracting rather than expanding, however, and the move towards lower price levels thus far this week appears to have been caused chiefly by the falling off in bids instead of by any serious selling pressure.

The short life of last week's buying enthusiasm, many brokers think, is due to the rapidity of the reconquest of France, emphasizing the necessity for a

more realistic appraisal of the uncertainties inherent in the reconversion period that may come sooner than anticipated.

• **London Reaction**—More potent in engendering the current period of growing uneasiness apparently has been the consistent drift towards lower price levels evidenced of late in the London stock market which previously had always greeted Allied victories by rising to new heights.

Some Londoners believe the decline merely represents the normal reaction that always follows a prolonged advance. Others, however, rather expect a definite change in the uptrend so long dominant. Less bullishness is reported as once avid stock buyers reflect on the uncertainties and risks the immediate postwar period is apt to produce.

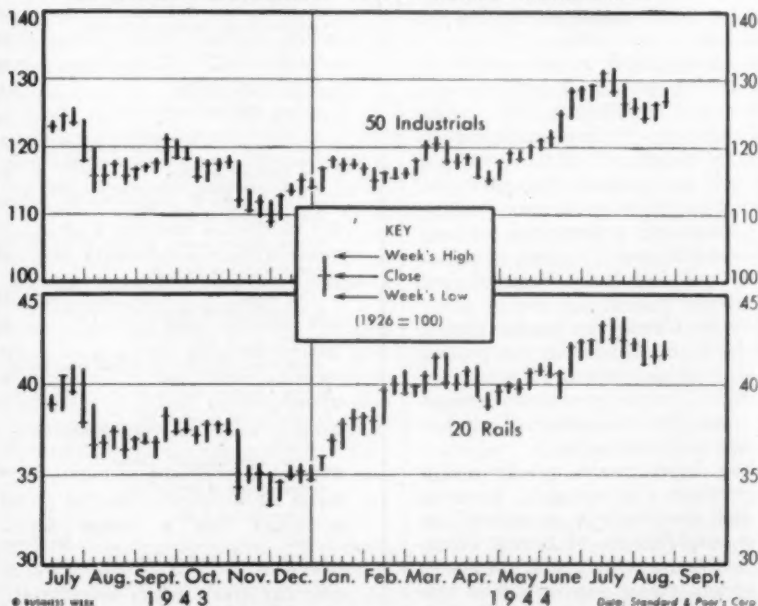
• **Some Optimism**—Bullishly inclined Wall Streeters think the present uneasiness here will spend itself very shortly, and they expect stocks to start moving higher again soon. Nevertheless, even this group advocates more than usual care in making commitments.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	127.0	126.5	126.5	115.8
Railroad	41.7	41.6	42.5	36.4
Utility	55.8	55.5	53.2	49.3
Bonds				
Industrial ...	121.3	120.8	120.9	117.4
Railroad	107.2	107.5	107.3	98.0
Utility	116.1	116.1	116.2	115.6

Data: Standard & Poor's Corp.

COMMON STOCKS—A WEEKLY RECORD



THE TRADING POST

A—Old Style

From Jules Kramer of the J. Walter Thompson Co. comes this reminder the attempt to control wages and prices under a wartime economy is not a new-fangled alien gadget it sometimes is assumed to be:

On January 8, 1777, the General Assembly of the State of Rhode Island and Providence Plantations passed a law with the formidable title of "An Act to prevent Monopolies and Oppression, by excessive and unreasonable prices for many of the Necessities and Conveniences of Life, and for preventing Disorders, and for the better supply of our Arms in the Army with such Necessaries as may be wanted."

This was a price and wage control law, binding an old and authentic American tradition for stabilizing prices and wages as a wartime measure.

The Rhode Island act was sweeping in scope and had "teeth" in it, too. It was effective, as were similar laws which were passed on the statute books of other of the thirteen states during the Revolutionary War. Not only were conditions so basically different than today, but the fledgling Republic suffered the disaster of a currency crisis and this alone was enough to nullify all efforts.

But the founding Fathers knew what was needed, and kept on trying. We find an act in Massachusetts as early as 1776, months before the Declaration of Independence. At the end of that year, representatives of all the New England states met at Providence and agreed on comprehensive measures to control the prices of about everything but real estate. The states passed laws, and the Rhode Island act. They failed and were repealed.

In 1777 the Continental Congress stepped into the picture and exhorted the separate states to act by means of regional conventions. More laws were passed. They were ineffective because of the deepening emergency crisis and the inability to secure public cooperation. But our forebears kept trying until 1780, only a year before the war came to an end with the surrender of Cornwallis at Yorktown, when Congress took action on the currency. This wrote further control efforts.

The Rhode Island act provides an illuminating insight into the judgment of the founders of the Republic. In the preamble it reads, concerning the spiral in prices and wages, that "unless a speedy and effectual remedy be put thereto, will be attended with the most pernicious and fatal consequences." Then comes an itemization of various articles and ceiling prices for them—foodstuffs, wearing apparel, fabrics, lumber and building materials, even tavern meals. Labor was classified according to occupation. Among the lowest paid workers were tailors at 3 shillings a day but board was included. Farm workers received somewhat more, 3 shillings and 6 pence a day. Caulkers were in the top pay bracket at 7 shillings a day.

We read that "good merchantable West India Rum" must not be sold for more than 7 shillings 8 pence a gallon or 2 shillings a quart. "New England Rum of the best quality" was much cheaper, 4 shillings 6 pence a gallon. No more than 3 pence was to be charged by barbers for a shave, and a ceiling of 4 pence a mile was set for horse-hire.

Wholesale prices of imported goods also were controlled. The act states that no more than 275 pounds sterling must be charged for certain types of textiles such as woollens that cost 100 pounds in Europe. A maximum advance of 20 per cent was allowed on Warlike and Military Stores.

Severe penalties were fixed for violations, including confiscation, fines and being declared "an enemy to his country."

The records of the times also disclose a realization of the need of rationing and the prevention of hoarding. We read that the citizens of Boston, considering "the present extraordinary Price of Provisions," urged the more opulent citizens to agree among themselves "on no occasion whatever to have more than Two Dishes of Meat on the same Day on their Table and to avoid the Use of Poultry & every other Superfluity as much as possible." Bostonians also were urged "to make two Dinners per Week on Fish, if it had to be." And we find a resolution passed by Massachusetts in 1779 to prevent families from having on hand more than a year's provisions.

Hotel War Job

We are getting used to statements of what various industries and companies are doing to help win the war. But the Sherman Hotel, in Chicago, reduces its performance to specific figures. In each of its rooms, a guest finds the following report:

"Hotel Sherman records reveal that we have:

"In the past year sheltered and fed approximately 90,000 Servicemen and women,

"In the same period fed and housed approximately 180,000 civilians traveling in the war effort,

"Sent 143 employees to the uniformed services,

"Had an average annual staff turnover of 400%,

"Changed from 37% to 43% female employees,

"Fed increased patronage under existing inadequacies without resorting to the 'closed' sign,

"We subscribed 170% to our quota of the 1943 Community and War Fund,

"Our employees have been awarded the 100% participation banner by the Treasury Dept. for Bond Subscriptions."

The report closes with a word of thanks for the guests' cooperation. W.C.



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THE TREND

COTTON—BANKHEADING INTO TROUBLE?

Sen. John H. Bankhead of Alabama has taken over for King Cotton the regency so long held by Ellison D. (Cotton Ed) Smith, who failed to win renomination in the South Carolina primaries. Bankhead is making a big effort to force cotton prices higher.

• Yet, in winning, the gentleman from Alabama probably will be doing his own constituency a disservice. Prospects for the cotton economy of the Southeast after the war are so bleak that raising planters' hopes at this time seems like picking them up for a hard letdown. Here are persuasive reasons for that view of it:

(1) Price and quality competition with synthetic fibers will become a postwar reality.

(2) In the competition with low-cost foreign growers, export markets for cotton can be regained only by some such artifice as subsidized sales or a cartel to hold the umbrella over all producing countries.

(3) Mechanization promises revolutionary changes in the cotton map, shifting most of the crop to the broad plains of Texas and Oklahoma.

Let's look at each of these forecasts. For background here are some of the most pertinent figures on the changes that have been taking place in cotton:

	1925-29 Average	1935-39 Average	1944 Estimates
Acreage	43,900,000	28,500,000	20,000,000
Yield per Acre (lb.)	171	226	264
Production (bales)	15,300,000	13,100,000	11,000,000
Foreign Production (bales)	10,700,000	13,600,000
U. S. Exports (bales)	8,100,000	5,200,000
U. S. Consumption (bales)	6,600,000	6,600,000	9,700,000
U. S. Rayon Consumption (500 lb. units)*	200,000	700,000	1,500,000
U. S. Cotton Price (lb.)...	17.4¢	9.9¢	20¢

* Rayon here is converted into 500-lb. units to correspond to the weight of the cotton bale.

Mill men today declare that cotton and rayon staple fiber are on a competitive price basis. Moreover, rayon has snatched a substantial slice of cotton's tire cord market on a quality basis.

• It is true that much of rayon's spectacular growth (use trebled in the ten years ending with 1939) was at the expense of silk. Yet the synthetic fiber undercut cotton to some extent even in those days when rayon cost more than it does now and when cotton was selling for half its present 20¢ a lb.

Should the United States experience a sustained high rate of business activity after the war, cotton could concede some ground to synthetic fibers and still enjoy an excellent volume. However, we have never been able to use anything like all the cotton we could grow.

Our cotton harvests averaged around 15,000,000 bales a year in the late twenties and we sold far more than

half our crops abroad. Peak peacetime consumption of cotton by U. S. mills was under 8,000,000 bales, but wartime use above 11,000,000 a year. Even figuring postwar home needs at 9,000,000 bales a year, a large export market would still be imperative.

In the thirties, we limited planted acreage and applied other price stimulants such as taking surpluses off the market with public funds. This accomplished several things:

Due to better farming, we grew almost as much cotton as ever on 60% as much acreage.

Farmers were urged to—and to some degree did—the acres forced into idleness for a more diversified agriculture.

We priced ourselves out of the export market to a major extent, fostering a big rise in foreign cotton.

We locked up surpluses that have ranged between 10,000,000 and 13,000,000 bales (equivalent to an average crop) for many years.

• Before the war, in an effort to regain our dwindling export markets, we tried the export subsidy. Many sound students of agricultural economics feel we shall have to return to the system if we are to continue to sell abroad. But even the most casual observer knows that such dumping is repugnant to all the fine theories of breaking down trade barriers in the postwar world. A realist knows, too, that subsidies on American products will bring retaliatory subsidies for the other fellow's products or countervailing duties against ours.

Mechanical cotton choppers and pickers could solve some problems of exports and rayon competition at the same time that they were creating domestic upset. These aids to cheap production should enable us to compete with the low-cost labor of China, Egypt, India, and Brazil.

However, this would be no help to the average small landowner, tenant farmer, or sharecropper in Alabama. These people couldn't afford the new machines, and even if they could, the small and hilly fields which predominate in the Southeast wouldn't be suited to the economical use.

• Experts in the Dept. of Agriculture saw mechanization coming years ago, saw the prospect of profitable cotton in Texas at 6¢ a lb., saw the ruination of planters elsewhere in the Cotton Belt. That's one reason they have been pushing diversification—peanuts, yams, livestock and the feed for stock. It remains to be seen if the growing industrialization of the South will provide markets for enough of this food raising to make up the prospective cotton losses.

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